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A TALK ABOUT FEBRUARY.

"The wintry West extends his blast,
And hail and rain does blaw,
Or the stormy North sends driving forth
The blinding sleet and snaw."

FEBRUARY has come round again, and although the world is still locked in its icy "sepulchre," and "winter keeps the key," we know that, in a few weeks, winter must give his last dying wail, and make way for that other month, which, bleak enough in itself, puts the world in a state of preparation for something better. But we must not represent winter as altogether desolate.

Provided our bodies are first made comfortable, there is something in a scene such as greets our eyes on some bright February morning, that is fitted to call up emotions by no means unpoetic. You look out through the frosted window panes, and the east is lighted up with a cinnamon glow that waxes deeper and warmer every minute, till the great round sun comes up, and the roofs of the houses, and the trees laden with a light snow, are tinged with a delicate pink, and all the landscape blushes beneath the ardent gaze of the sun. Soon the elms and maples begin to stir in the wind, and shake off their burden, their blossoms of snow,—but the hackmatack, the pine and the fir, presenting a broader surface, may keep theirs for many days yet. How cheerful looks the face of our next neighbor, as he comes out with his shovel to clear away the snow from his door, and how clear is the ring of his voice, as he shouts his "good morning" across the street.

Is winter altogether desolate? Why, look at those little urchins playing on the slope before the door. Now they stretch themselves full length in the snow, and laugh to see the impression of a boy they have left there. Then they snow-ball each other awhile, or test their strength in a wrestling match, and anon they take a turn at coasting, their joyful cries testifying that the pleasure of drawing the sled up the hill, is scarcely less than being carried down by it. We should find it pretty hard to convert *them* to the belief that winter is an innovation, and ought not to be tolerated.

But some young lady says, perhaps, "Your winter sunrise may be a very fine thing, but I never saw it." Is it possible—and you not passed the age of romance—is it possible that you find glories in a feather bed which you cannot find in a sunrise! Yet, doubtless, you have often thought it very romantic when you have read in some delicious novel of a Beatrice, or Amanda, who, travelling among the mountains of Switzerland, took a long walk before breakfast to see this same sunrise which you may see any morning from your parlor window. Besides, you know the old couplet—

"Early to bed and early to rise," &c.

But the mornings are growing longer now, and there is quite a perceptible evening twilight,—that hour so pleasant to those at leisure, and surrounded by good company. Hear what Mrs. Stowe says about the twilight that used to come in the old New England kitchens: "How dreamy the winter twilight came in there—as yet the candles were not lighted—when the crickets chirped around the dark stone hearth, and shifting tongues of flame flickered, and cast dancing shadows and elfish lights on the walls, while grandmother nodded over her knitting-work, and puss purred, and

old Rover lay dreamily opening now one eye and then the other on the family group."

That era has indeed, passed away, and save in a few of our isolated country towns, so have the peculiarities she describes in the farm-house kitchen; but the sun still shines and sets, and the twilight falls as softly, and family groups gather just as lovingly together, as they did in the days of Dr. Hopkins and the widow Scudder!

New England life is still calm, and peaceful, and homelike, and probably much more comfortable than then. There are some things which Mrs. Stowe, with all her remarkable fidelity to nature, must have seen through the medium of her own poetic temperament. For instance, when she describes the woman who does work enough for three stout Irish girls—more than three Irish *men* could do—as having hands "small and white;" – and when she describes a kitchen as never being thrown out of its composure by the events of washing, baking, &c., &c., we appeal to any man (who is not an old bachelor,) if his experience has not led him to a different view of the subject. We assert, then, that New Englanders have taken a step into higher regions of comfort, inasmuch as they have advanced, rather more into the front of their dwellings, and assigned to certain phases of household life the precise place to which they belong, as works of necessity which minister to our comfort and repose, but which are not by any means to be regarded as the object of life.

To change the words of an old aphorism, we should not *live to work*, but *work to live*, and all the beautiful fancies which we can throw about life, without interfering with its practical usefulness, are an advance. Yes, the time has gone by when the good matron was obliged to begin with the very wool on the sheep's back, and provide the family with winter clothing. Steam factories and sewing machines, washing machines and apple-parers! We hail you as so many beneficent hands held out to lift a burden from our wives and daughters, so that forever and always they need not be the mere household drudges who wait upon our pleasure. Society being now arranged upon a somewhat different principle, there is a better chance for our young women to get that out-of-door exercise of which they stand in as much need as our young men. Now we see them out skating on the pond, meadow or river, presenting a picture of grace and health pleasant to look upon. Now we see them crossing through snow-drifts or mud, as the case may be, and we are sorry for the delicate foot which must walk in such rough ways, but flowing skirts are slightly lifted, and behold, a pair of India-rubber boots or snow-shoes removes all our apprehensions for the safety of the wearer. Our great-grandmothers never saw an India rubber shoe, and when they went to church, all the fire they had was in the little tin foot-stoves they carried in their hands—that "sacred fire," which they guarded like so many priestesses in the temple of Vesta. As to clothing, we would not seek to penetrate too far into the mysteries of the feminine toilet, but any one who will, in confidence, consult some good old lady on the subject, and compare the revelation with what may have come under his own observation, cannot fail to be struck with the improvement that has been made in this matter; nay, he will wonder that the women of sixty years ago did not become pillars of ice in the streets, as we deserve to become "pillars of salt," if we look back with envy upon the past generation, and whine about the "good old days" of our ancestors, instead of being thankful for our improved condition. (Eccl. 7: 10.)

It was well towards the last of February, one hundred and twenty-eight years ago, but in a latitude some six or seven degrees lower than ours, so that perhaps the apricots were in flower, and the crocuses were thrusting their yellow heads out of the damp earth, that a child was born. Doubtless some one came to the father and announced, "It is a boy"—and there was joy in the household, and the mother looked tenderly on her little babe, and prayed that God would be his guide; but she did not know, and no one else knew, that she had, on that 22d of February, 1732, achieved the American Independence! She knew that she was a happy young mother, but she never thought that she was "*Mary, the mother of Washington!*" She knew that it was a great, important era in her life, but she never thought what an era it was in the Nation's life—the nation which was then no nation, but a colony. She little dreamed, that, through her, the *Twenty-Second of February* had become immortal forever.

But God accepted the charge she committed to Him, and so we, up to this February, 1860, have been able to pursue our various callings in peace and quietness, cultivating the arts and sciences, and drinking our tea without paying an outrageous tax!

ABUNDANCE OF WEEDS.—An English botanist discovered, by careful examination, 7600 weed seeds in a pint of clover seed, 12,600 in a pint of congress seed, 39,440 in a pint of broad clover, and 25,000 of Dutch clover seed. In a single plant of black mustard he counted over 8000 seeds, and in a specimen of charlock 4000; the seed of a single plant of common dock produced 4700 little docks. The white daisy has over 400 seeds in each flower, and sometimes 50 flowers from one root.

FORMS OF EXPRESSION.—People say that they *shell* peas, when they *un*-shell them; that they *husk* corn, when they *un*-husk it; that they *dust* the furniture, when they *un*-dust it, or take the dust from it; that they *skin* a calf, when they *un*-

skin it; and that they *scale* fishes, when they *unscale* them. I have heard many men say they were going to weed their gardens, when I thought their gardens were weedy enough already.

For the New England Farmer.

IS STOCK-RAISING PROFITABLE.

This is a subject which should interest all farmers, as all are more or less engaged in the business. Let us see how much it costs to raise different kinds of stock, and the net profit on it.

A colt, for instance, taken as an average, 4 months old, is worth $20; the use of horse and mare and other expenses is worth $12; leaving $8 net profit. It will cost about $8 for forage the first winter, and 10 cents a week for pasturing 26 weeks, making the whole cost, $2,60+$8+$12 =$22,60. The colt is now worth $30. The second winter it will not cost much more for forage than the first; as the colt will eat a great deal that other cattle leave, say $10; pasturing, 15 cents a week, $3,90. Cost, $36,50. Worth $45. Third winter, $15; pasturing, 20 cents a week, $5. Colt is worth $65. Cost $56,50. Fourth winter, $20. Pasturing, 25 cents a week, $6,50. Cost $83. Worth $90. Here we have a net profit of $7 on a colt 4 years and 4 months old; which is one dollar less than the profit on the same colt at 4 months old. The prices which I have set may be called small, but there are more sold under those sums than over them.

If the colt has been worked in this time, which should not be done, it probably has not done any more than enough to pay for breakage and the interest on $20, which will amount to over $5.

COST AND PROFIT ON SHEEP.

A good lamb 6 months old is worth $2. Let us keep the sheep four years, with

	Dr.	Cr.
First investment	$2,00	
Cost of wintering, $1,50; pasturing, 50 cts	2,00	
Income, or gain, 5 pounds wool at 35 cts		$1,75
Second year; cost of keeping	2,00	
Income one lamb, $2, 3 pounds wool, $1,05		3,05
Third year, Dr. to keeping sheep and lamb	4,00	
Cr. by 8 pounds wool, 35 cts		2,80
Cr. by one lamb		2,00
Fourth year, Dr. to keeping 3 sheep	6,00	
Cr. by 2 lambs, $2 each		4,00
Cr. by 11 pounds wool, at 35 cts		3,85
Income of one sheep for 4 years		$17,45
First cost, and cost of keeping same time	$16,00	
Net profit		$1,45
The old sheep is worth as much as when bought.		2,00
The yearlings, or 2 years old, 50c each extra		1,00
Which leaves, after paying all expenses		$4,45

A calf one month old, if well fatted, is worth $4. Now let us see how much profit there is on a "fatted calf." Perhaps I may be wrong, but I should say, it should have 8 or 10 quarts of new milk a day. 8 quarts at 2 cents a quart for 31 days will amount to $4,96.

If I am right in my estimate, there is no profit in fatting calves, at the prices we get here. If the calf is to be raised, it may be fed on part skim-milk, and will then cost all it will be worth at six months old, viz.: $5. It will cost as much as a ton of hay is worth to winter the calf well, $8. It is worth 8 cents a week for pasturing, $2,08. Second winter same as the first, $8. Pasturing, 12 cents a week, $3,12. Cost, at 2 years and 6 months old, $26,20. The usual price at this age is $20. As another year's keeping and growth would not materially alter the relation of cost and profit, and as there are more cattle—heifers especially—sold at this age than at any other, I shall not follow this subject any farther. It has always been conceded by farmers that it costs as much to winter a calf as it does a yearling; and if any one can make the figures count up any different, or in any way make both ends meet, I should be glad to have it done.

T. B. BAILEY.

Newbury, Vt., Jan., 1860.

TO PRESERVE STAKES, &c., IN THE GROUND.

Quite recently, while walking in the garden with the Hon. J. W. Fairfield, Hudson, N. Y., he called my attention to the small stakes which supported the raspberry canes. The end in the ground, as well as the part above, was as sound and bright as if lately made, but he informed me that they had been in constant use for twelve years! Said I, "Of course they are kyanized?" "Yes," he replied, "and the process is so simple and cheap that it deserves to be universally known, and it is simply this: One pound of blue vitriol to twenty quarts of water. Dissolve the vitriol with boiling water, and then add the remainder.

"The end of the stick is then dropped into the solution, and left to stand four or five days; for shingles three days will answer, and for posts six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box, for the reason that any barrel will be shrunk by the operation so as to leak. Instead of expanding an old cask as other liquids do, this shrinks them. Chloride of zinc, I am told, will answer the same purpose, but the blue vitriol is, or was formerly, very cheap, viz.: three to six cents per pound."

Mr. Fairfield informed me that the French government are pursuing a similar process with every item of timber now used in ship-building, and that they have a way of forcing it into the trees in the forest as soon as cut, ejecting the sap and kyanizing it all on the spot. I have not experimented with it, but Mr. Fairfield's success seemed to be complete.

The process is so simple and cheap as to be within the convenience of every farmer, and gardener, even, and I therefore thought it so valuable as to warrant a special notice of it.—*R. G. Pardee.*

THE COUNTRY GENTLEMAN.—The enterprising publishers of this excellent journal have made some typographical changes in it at the opening year, omitting the benign countenance which had long stood as a vignette, but introducing a larger type as a compensation. The larger type is a decided improvement. The doctrines of the *Country Gentleman* are sound, and its conductors gentlemen of ability and the highest sense of honor. The Old Gentleman makes his mark wherever he travels.

EXTRACTS AND REPLIES.

ORNAMENTAL TREES.

Permit me to ask you and your correspondents a few questions in regard to ornamental shade trees. I propose to set some in a hard, clayey soil, and I wish to know what are the best kinds adapted to the soil, and which is the best season? Also, the manner of transplanting.

I would ask is there any difficulty in growing the rock maple in the described soil?

Dover, N. H., Dec. 19, 1859. G. F. S.

REMARKS.—The same care that is bestowed upon a well set apple tree, is all that is necessary for shade trees. Any shade tree will grow in a "hard, clayey soil," if that soil be rich and is not drowned with water. The trees, however, would grow vastly better if the land were drained. The rock maple often grows luxuriantly on such lands.

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WILD GRAPES.

Can the wild grape be domesticated? Will it result in an improvement in the size and quality of the fruit? It grows by the river side, has a sharp, acid taste and is about the size of a large pea. I think of transplanting several of the vines the coming spring, with a view of enlarging and improving the fruit, if possible. I will report the result of the experiment. Any suggestions will be thankfully received. I. W. SANBORN.

Lyndon, Vt.

REMARKS.—It is doubtful whether the wild grape root or vine can be materially improved. We have tried to do so, and have known others make the attempt, but with little success. The effect would be much like that of attempting to improve the common crab apple tree. Cultivation would undoubtedly increase the size of the tree and the fruit, but the natural sharpness of the fruit would remain, despite all your fostering care.

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NORTH READING FARMERS' CLUB.

This Society has proved a very interesting and profitable one; its members meet every fortnight to discuss subjects pertaining to agriculture, horticulture, &c. Its meetings are attended by all our best and most intelligent farmers, and many valuable thoughts and suggestions are elicited at every meetifig. During the last winter, lectures were delivered before the club by practical men, among whom J. M. Ives, Asa G. Sheldon, J. G. Needham and Rev. F. N. Jones. A course of lectures has been commenced this winter, to continue through the season. G. F. P.

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PROFITS OF COWS.

Your correspondent, Mr. Pinkham, appears determined to look upon the worst side of the picture. I hardly think his is the true one—at least, it is very strange that thousands of farmers should have been growing poorer for the last fifty years, and not have discernment enough to see it. I think Mr. Pinkham must be rather a poor farmer, not to be able to get but a trifle over 1800 quarts of milk from his fifty dollar cow. A good cow will give seven quarts (wine measure) per day the year through, making 700 quarts more than that cow. Now milk is worth two cents and a half, year in and year out, either for sale or to make butter, making sixty-three dollars. The cost of keeping a cow one year varies in different places. In Chelmsford, I presume it would be about $40, leaving clear $23, which is, all things considered, (such as in that way finding a ready market for his hay, roots, &c.,) very fair.

Lynn, 1859. YOUNG DAIRYMAN.

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THE HYDRAULIC RAM.

I have a ram that has been running for the last eleven years, supplying water for house and stable, with only two feet eight inches fall, and twenty feet rise, with scarcely any trouble, and for aught I can see, with but very little wear of the machine.

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LEGHORN FOWLS.

I wish to inquire if any of your readers have tried the Leghorn fowls; if so, what is their opinion of them? I have kept them the past year, and they have given better satisfaction as layers than any others we have ever kept, although we thought the Black Spanish very good. Ours are mostly of the white variety, and for beauty or utility are unsurpassed by any fowls within my knowledge.

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THE NATIVE GRAPE.

I have three kinds of native grape which I have cultivated for the last fifteen years or more, and which have been called superior by all who have eaten of them. The red grape, purple grape, and what we call the white grape. They are all hardy, and ripen in season to be out of the way of Jack Frost. L. R. HEWINS.

Foxboro', Dec. 16, 1859.

For the New England Farmer.

CAPACITY OF DRAIN PIPE.

PREPARED BY MESSRS. SHEDD & EDSON, AGRICULTURAL ENGINEERS.

The tables here given were prepared for private use, in the practice of agricultural drainage, and have been of great benefit.

Tables of discharge, without the length of pipe that may be used, were contributed to FRENCH'S Farm Drainage, but beyond that, it is believed no tables suited to the purpose for which these were designed, and based upon actual, careful experiment, have ever been published. It is hoped these will contribute somewhat towards establishing a more exact method of determining the size of pipe required, than has heretofore been used.

Mr. Smeaton's experiments form the basis of the tables of discharge, and the results have been verified by comparison with other tables, and by the rules of Weisback and D'Aubuisson.

There are many reasons for a difference in the quantity of water discharged from drains of the same area, and at the same inclination, when pipes are taken from different kilns and laid by different persons; but it is believed that the quantity of discharge, due to the size and fall, is here given with accuracy for a well laid drain formed of good pipe; it is, certainly, with sufficient accuracy for our purpose.

Nothing appertaining to drainage has been done so blindly, either in England or in this country, as the selection of the size of pipe for submain and main drains.

The result of an error in the size of pipe required is sometimes only extravagant, at other times it is mischievous, for the destruction of the work may be caused by it. If the size of pipe used is larger than is required, the extra cost is thrown away—but if smaller, then the pressure of water, accumulated from lateral drains, and flowing into a submain or main drain too small to convey it away, may cause the pipe to "blow," or burst.

We are liable to have, at any time in New England, a rainfall of 3 inches vertical depth.

It has been found, from various long and careful observations, that 50 per cent. of this rainfall is water of drainage, from land in ordinary condition in the northern States.

From a thoroughly drained field, the percentage of water of drainage will be greater than this, but not over 66⅔ per cent., except under extraordinary circumstances. We have, therefore, assumed, in making up these tables, that it is necessary to provide for the discharge of water falling upon a strip of land forty feet in width, to the depth of two inches, and running off in forty-eight hours.

The quantity of discharge is given for a straight pipe running full, but a full pipe cannot perform the office of drainage and an allowance of 15 per cent. of the area has been made, to allow of the entrance of water all along the line of the drain. All drains are liable to curvature, and a greater part of the drains in every system must be curved, to some extent, at their confluence with other drains. A well laid drain, turning by a gentle curve to flow at right angles with its former course, will discharge about 10 per cent. less water than when running straight,—an allowance has therefore been made for this.

In a thoroughly pulverized soil, the space occupied by air is about 25 per cent. of the entire bulk, so that such a soil, drained to the depth of 3 or 4 feet, would receive the largest rainfall of which we have any record, without filling the soil, and running off over the surface. Such pulverization can only occur under the most constant cultivation and thorough drainage; but most soils, well drained and subsoiled, will, after the drains have acted for two or three years, receive the largest rainfall without surface-washing.

The tables can only be used to provide for water falling on the surface occupied by the drains. If the drained field occupies such a position that surface water flows from other fields into it, the size of pipes must be sufficiently increased to provide for it, and if the water of springs would find outlet through the drains, a similar provision must be made for it. Of the necessary increase in size for these conditions, only an experienced and competent person can judge; but the tables are still very useful under these circumstances, for the relative size of pipe required remains as before, and the proper place to make a change from the size of pipe being used to the next larger, can be accurately determined from them.

The areas used in these tables, and given under each size of pipe, are taken by actual measurement from pipe manufactured in New England. The 1¼, 2, 3, 4, and 5 inch sizes, are common sole-tile pattern. The 8 inch size is round bore, 8 inches in diameter.

The left hand or *first column*, shows the fall in one hundred feet given in feet and inches. The *second* gives the number of gallons of water the pipe would discharge in twenty-four hours if laid at that inclination. The *third* shows what length of pipe of that size may be used to convey water of rainfall, before it will be necessary to take the next larger size.

In seeking the necessary size of pipe for a certain position, the aggregate length of all the drains above it, from which water would flow into the pipe at this point, must be taken from the length allowed by the table, and the remainder will show what length of pipe may be used from that point forward, as far as the fall continues the same.

1¼ INCH DRAIN PIPE.....AREA, 1.77 INCHES.

Fall. ft. in.	*Discharge.*	*Length.*	*Fall.* ft. in.	*Discharge.*	*Length.*
0.3	5631	169	5.3	29705	891
0.6	8248	247	5.6	30454	913
0.9	10231	307	5.9	31168	935
1.0	12055	362	6.0	31723	952
1.3	13800	414	6.3	32516	975
1.6	15148	454	6.6	33151	995
1.9	16655	500	6.9	33706	1011
2.0	17924	538	7.0	34349	1030
2.3	19113	573	7.3	34975	1049
2.6	20303	609	7.6	35609	1068
2.9	21334	640	7.9	36154	1085
3.0	22444	673	8.0	36878	1106
3.3	23151	694	8.3	37354	1121
3.6	24268	728	8.6	37989	1140
3.9	25061	752	8.9	38464	1154
4.0	26013	780	9.0	38940	1168
4.3	26806	804	9.3	39495	1185
4.6	27441	823	9.6	39971	1200
4.9	28234	847	9.9	40447	1213
5.0	28947	868	10.0	40923	1228

2 INCH DRAIN PIPE.....AREA, 2.98 INCHES.

Fall. ft. in.	*Discharge.*	*Length.*	*Fall.* ft. in.	*Discharge.*	*Length.*
0.3	10575	317	5.3	55019	1650
0.6	15528	465	5.6	56492	1695
0.9	20080	602	5.9	57696	1731
1.0	22891	687	6.0	58901	1767
1.3	25970	780	6.3	60106	1803
1.6	28915	867	6.6	61310	1839
1.9	31459	944	6.9	62382	1872
2.0	33868	1016	7.0	63453	1904
2.3	36010	1080	7.3	64667	1940
2.6	37884	1137	7.6	65728	1972
2.9	39758	1193	7.9	66799	2004
3.0	41632	1249	8.0	67870	2038
3.3	43373	1301	8.3	68941	2068
3.6	44979	1349	8.6	70012	2100
3.9	46585	1398	8.9	71083	2132
4.0	48058	1442	9.0	72029	2160
4.3	49531	1486	9.3	73091	2193
4.6	50869	1526	9.6	74028	2221
4.9	52342	1570	9.9	74965	2249
5.0	53814	1614	10.0	75902	2277

3 INCH DRAIN PIPE.....AREA, 6.11 INCHES.

Fall. ft. in.	*Discharge.*	*Length.*	*Fall.* ft. in.	*Discharge.*	*Length.*
0.3	24687	740	5.3	125356	3760
0.6	36482	1094	5.6	128374	3850
0.9	45534	1366	5.9	131117	3933
1.0	53215	1596	6.0	134134	4024
1.3	60072	1802	6.3	136603	4098
1.6	66656	2000	6.6	139346	4180
1.9	72142	2164	6.9	142089	4263
2.0	77628	2329	7.0	144557	4336
2.3	82291	2469	7.3	147300	4419
2.6	86680	2600	7.6	150069	4502
2.9	90794	2724	7.9	152238	4567
3.0	95183	2855	8.0	154706	4641
3.3	98749	2962	8.3	157175	4715
3.6	102589	3078	8.6	159644	4789
3.9	106155	3184	8.9	162113	4863
4.0	109447	3283	9.0	164313	4929
4.3	112738	3382	9.3	166502	4995
4.6	116030	3481	9.6	168970	5069
4.9	119047	3571	9.9	171165	5135
5.0	122339	3670	10.0	173359	5201

4 INCH DRAIN PIPE.....AREA, 9.01 INCHES.

Fall. ft. in.	Discharge.	Length.	Fall. ft. in.	Discharge.	Length.
0.3	43698	1311	5.3	196639	5899
0.6	60691	1821	5.6	201090	6033
0.9	74043	2221	5.9	205945	6178
1.0	86181	2585	6.0	210396	6312
1.3	96297	2889	6.3	214442	6433
1.6	105603	3168	6.6	218893	6567
1.9	113695	3411	6.9	222939	6688
2.0	121382	3641	7.0	226985	6810
2.3	129090	3873	7.3	231033	6931
2.6	135948	4078	7.6	235077	7052
2.9	142827	4285	7.9	239123	7174
3.0	148896	4467	8.0	243169	7295
3.3	154560	4637	8.3	246811	7404
3.6	160225	4807	8.6	250452	7514
3.9	165889	4977	8.9	254093	7623
4.0	171554	5147	9.0	257735	7732
4.3	176814	5304	9.3	260972	7829
4.6	182074	5462	9.6	264603	7938
4.9	186928	5608	9.9	268255	8048
5.0	192189	5766	10.0	271492	8145

5 INCH DRAIN PIPE.....AREA, 19.64 INCHES.

Fall. ft. in.	Discharge.	Length.	Fall. ft. in.	Discharge.	Length.
0.3	99584	2987	5.3	442401	13272
0.6	138362	4151	5.6	452977	13589
0.9	167442	5023	5.9	462671	13880
1.0	193881	5816	6.0	473246	14197
1.3	215913	6477	6.3	483820	14515
1.6	237945	7138	6.6	493515	14805
1.9	255570	7667	6.9	502327	15070
2.0	273196	8196	7.0	511140	15334
2.3	289040	8698	7.3	520052	15602
2.6	304922	9148	7.6	528767	15863
2.9	320785	9624	7.9	537579	16127
3.0	334885	10146	8.0	546392	16392
3.3	348975	10469	8.3	555205	16656
3.6	362205	10866	8.6	564017	16920
3.9	375424	11263	8.9	571948	17158
4.0	387762	11633	9.0	579880	17396
4.3	398338	11950	9.3	586930	17608
4.6	410675	12320	9.6	594861	17846
4.9	421251	12638	9.9	602793	18084
5.0	430825	12925	10.0	610723	18322

8 INCH DRAIN PIPE.....AREA, 50.26 INCHES.

Fall. ft. in.	Discharge.	Length.	Fall. ft. in.	Discharge.	Length.
0.3	277483	8324	5.3	1206959	36209
0.6	372240	11167	5.6	1234031	37021
0.9	453456	13604	5.9	1261103	37833
1.0	523648	15709	6.0	1288175	38645
1.3	586560	17597	6.3	1315247	39457
1.6	642959	19289	6.6	1343839	40315
1.9	694848	20845	6.9	1369391	41082
2.0	744479	22334	7.0	1391951	41759
2.3	789600	23688	7.3	1414531	42436
2.6	844720	25342	7.6	1441583	43247
2.9	877584	26327	7.9	1466399	43992
3.0	913680	27410	8.0	1488959	44669
3.3	949776	28493	8.3	1511539	45346
3.6	971659	29149	8.6	1534099	46023
3.9	1021974	30659	8.9	1556658	46700
4.0	1055551	31667	9.0	1579199	47376
4.3	1086135	32584	9.3	1601759	48053
4.6	1116719	33501	9.6	1624319	48730
4.9	1146047	34381	9.9	1644622	49339
5.0	1177631	35329	10.0	1664927	49948

SAVING MANURE.—On re-publishing Mr. Holbrook's plan of a gutter in the stable, immediately behind the cattle, to be filled with absorbents for the liquid portion of the manure, the editor of the *Homestead* expresses preference for a method which he practices, of keeping the entire stable covered with a thick layer of dry muck, or other absorbent. The parts of this bed that become saturated, and the solid feces, are removed as occasion requires, and the whole is replaced once in two weeks, and should be kept covered with litter, which furnishes a comfortable bed for the stock, whose animal heat is supposed to produce very beneficial effects upon these materials. The solid and liquid droppings of a well-fed cow are estimated by the editor at nearly a ton a month, to which three tons of muck may be added; thus producing full four times as much as that made in the common practice; and if the quality is at all inferior, he has not been able to discover it in a close observation of six years.

For the New England Farmer.

SUBJECTS FOR DISCUSSION IN FARMERS' CLUBS.

MR. EDITOR:—As I see that an effort is being make by the State to institute and promote Agricultural Clubs throughout the Commonwealth; and as I have known such clubs to be at a loss to find subjects promotive of their interest and the general good to discuss, I thought I would send you for publication in the *Farmer* a few of the many questions in which the farmers should take deep thought, and consult together at the present time.

Has a man a right to follow a losing business?

Are any of the "Statute Laws" of this State oppressive and degrading to the farmer?

Is the common system of marketing promotive of the farmer's interests?

Have the farmers a right to combine, or act in unison, to promote their interest?

Is selling farm products below their cost, a public benefit?

Is New England farming at the present time conducive to health?

Would a change of thought and effort among agriculturists, from how to obtain a large surplus, to the idea of a sure profit, result in universal good to all classes?

Can most of the evils of society be traced directly to the unprofitableness of farming?

I want to say at some time, and perhaps I might as well say it now, and in this connection as well as in any other, that, as a citizen of Massachusetts, and a farmer, and my interests and rights being inseparable from those of my brother farmers, I am opposed now and forever, to all *State effort or State aid*, to promote, as it is thought by some, the farming interest. I can see nothing in it but "*evil*, and that continually." "Let every tub stand upon its own bottom," is perhaps not a very genteel expression, yet is it not applicable in this case? For half a century our good and ever indulgent mother, the *State*, has fondled and caressed the farming interests, till she has made fools of one portion of the people, and nearly bankrupted another.

Repeal all laws that are antagonistic to the farmer's good, and dry up the pap which has flowed from the treasury of the State for a quarter of a century, and in five years, if the farmers of the Old Bay State don't show signs of life and prosperity, which they never before dreamed of, then write me down as incompetent to judge of the natural course of cause and effect. "Where the carrion is, there also will be found the vulture." Let the course which is fast gaining ground in the State, be continued for another quarter of a century, and if a "*child*" that is not easy to manage, but will be extremely troublesome, is not fastened upon us, then I am no judge. If the State has got any

stray change in its huge pocket, that it can find no better use for, let it pay its debts, and wean her offspring before it has the power to kick her over.

Let the farmers put on and wear a clean dicky, become more familiar with the slate and pencil, and learn the difference between profit and the prime cost of an article, and in five years not a man among them could be found who would be willing to acknowledge that they were ever *under guardianship* to the State. Further, let the lawyers, doctors, preachers and the soft-hand gentry generally, observe the familiar adage, "shoemaker, stick to thy last," and if they happen to feel the need of any thing in *our line*, and have got any loose change in the their trowsers pocket, and will call around and be civil about it, they can be accommodated. T. J. PINKHAM.

Chelmsford, Mass., Dec. 19, 1859.

For the New England Farmer.

TURNING COWS TO GRASS---COST OF KEEPING.

MR. EDITOR:—Looking over your correspondent T. J. Pinkham's article on raising milk, I notice he does not propose to turn out his cow to grass till the first of June. This is not the time of year to talk about turning out cattle, but as it brought the subject to my mind, I will write a few lines on it.

I consider it best to turn out stock early. From the 10th of May to the 10th of June is usually the best feed month in the year. I turn out just as early as I can, or as soon as the grass gets started, for two reasons; that the stock does better, and the pasture does better. I know that many good farmers say, let the pasture get a good start. I have found by experiment that if I kept my cattle up late, till the feed got rank, they were sure to scour badly, while if I turned out early, they would not scour at all, and after a few days would eat hay again.

By turning out early, the cattle go into the low places, where the grass starts first, and eat them down; whereas, if you turn in late, they do not go into the low places, and that grass, not being as good, is suffered to go to seed. If the low ground is fed down early, it starts up fresh again, and they will keep it fed all the year.

I have known many cows injured, and some spoiled by turning them from hay into rank clover.

Hollis, Dec. 17, 1859. ED. EMERSON.

P. S.—As I do not think much of selling milk at 2 cents per quart, I will not go into the profit or loss, but should like to keep 40 or 50 of Mr. P.'s cows at 8 cents a day, or 56 cents per week. On most of the milk farms out of the villages, from 3 to 4 cents is as high as is paid per day. Two and a half tons of hay and five bushels of meal, looks large. His cow may eat it, mine will not in one winter.

TIMOTHY SEED.—In Lee county, Illinois, this seed is grown successfully on the prairies. In one case six hundred bushels were harvested on eighty acres. Three successive crops are recommended, producing some fifteen dollars per acre. With reapers and threshing-machines the crop is cheaply harvested.

For the New England Farmer.

SCRATCHES IN HORSES.

What are "scratches" in horses, and what will the most speedily and assuredly effect their cure? The first portion of the question, it is well to answer, although seldom advanced. But the remainder is so often placed as an inquiry in your columns, Messrs. Editors, that if one knows a remedy, I hold he should make it public, as indeed he ought *all* knowledge that he thinks may be of value to his fellow-man.

"Scratches" or "selenders" is a cutaneous disorder, exhibiting itself between the hinder postern joints and hoofs of the horse, consisting of cracks, soreness, and at times attended with suppuration. They are generally most troublesome in winter and spring, while the roads are muddy, (which obstructs the perspiration of the parts,) together with snow water, which is very unfavorable. They are a source of great irritation to the animal, and even of acute pain; and if long neglected, ultimate into lameness, and almost an entire loss of the services of many a fine horse. Such are scratches or selenders.

Now as to their cure. Being strictly of a cutaneous disorder, cutaneous remedies are most appropriate; still other alleviators are desirable, if not needed. First, the affected parts ought to be thoroughly cleansed, and well washed in warm castile soap-suds, and thoroughly dried with a clean cloth; then a decoction made from the plant I will hereafter designate, and all parts bathed, say twice a day, for a few minutes, allowing the same to dry well in, until a cure be effected. In some conditions of the ailment, it may a little keenly irritate, but this is mere momentary, and should not be regarded. The diet of the animal ought to be cool and loosening, but no internal medicines are required. In fact, the dosing with salts, nitre, brimstone, and very many other articles, are seriously pernicious, tending to debilitate the animal, and thus weaken the recuperative powers, so greatly needed in all healing processes. Potatoes fed raw, are most useful, their effect being not only laxative, but "anti-scorbutic." So with various other vegetables in a degree.

The wash, (before alluded to,) is made by obtaining the twigs, leaves and blossoms of the plant known as "lamb kill," growing so abundantly in most of our fields, and steeping a quantity of the same in clear water, that is boiling and simmering it, and suffering the same to stand and cool but making the decoction quite strong. This infusion, applied, as before directed, (paying some measure of regard to the diet of the animal, as before given,) is a speedy, sure and effectual curative of scratches or selenders in horses. In no instance, wherever applied, have I learned of its failure or cure. At least, the whole process is a harmless one, and worthy the trial of any regarding the goodly condition of the suffering beast. It would be well, that this valuable "plant" be gathered in its appropriate season, and carefully marked, as if taken by any one inwardly by mistake, its effects would be most dangerous. That all may understand fully what this product is, I copy from "Thatcher's Dispensatory." "Lamb kill, is an evergreen common on cold, wet land. Blossoms reddish, variegated, June and July. The leaves prove fatal to sleep. From an inaugural experi-

mental dissertation published in Philadelphia, 1802, by Dr. Thomas, upon the species of lamb kill, botanically called '*Kalmia Latefolia*,' it appears that the leaves abound with resin, and are most active as a mercurial agent. From the same dissertation we find that a decoction prepared by putting one ounce of the leaves into eight ounces of water, and boiling it down to four ounces, cured a 'diarrhœa' of eight weeks' continuance. The dose, at first, was thirty drops, six times a day, but producing vertigo, it was diminished to four times a day. The itch was speedily cured, by washing the parts with the decoction. The 'scald head' or '*Tinea Capitis*,' was also cured by anointing the head with an ointment made of the leaves and hog's lard. Dr. Barton bears testimony of the effect of this ointment in '*Tinea*.' A saturated tincture of the leaves of the plant in proof spirit, is an active remedy. Some kinds of 'herpes' and warty excrescences have been known to yield to the repeated application of an infusion of '*Kalmia*' leaves."

This is the description given by the celebrated Dr. Thatcher, in his valuable dispensatory, on the virtues of '*Kalmia*,' or lamb kill. It will thus be seen, he values it highly as a remedial agent in cutaneous affections, by reason of its determined action on diseases of the skin. And such are scratches or selenders in horses, being merely a local disorder of the skin, connected with the limbs of the animal. To any one who will apply this easily obtained and sure curative, following closely the directions we have laid down, we promise a speedy, safe and perfect cure of that most aggrating ailment in horses, scratches or selenders.

December 15, 1859. OAK HILL.

For the New England Farmer.

THE CORN AND OTHER CROPS.

You say, in your last paper, that the critics are after Mr. Pinkham with a sharp stick, relative to his communication of Nov. 12th. I have read, with interest, what Mr. P. said, and I think his estimate nearest to the cost of producing an acre of corn than those cute men who have as yet criticised his estimate; take, for instance, Mr. Emerson, who hires his men so that the cost of the day's work is but fifty-eight cents per day. I would like to give more than one-half of that sum to board my hired help; I should think I was evading some of the commands of the good Book, where it says, "the laborer is worthy of his hire," if I paid him only one dollar for husking sixty-six bushel ears of corn. Now for Mr. P.'s estimate; he only charged ten dollars for ten loads of manure, which four oxen hauled out; these oxen will draw out, easily, one-half cord that is worth five dollars per cord, in any farmer's yard; therefore, if as some say, one-half of the value of the manure is left in the ground, he has not charged too much for it. Mr. E. objects to the charge of plowing, and seems to intimate that part of it should be reckoned as improvement of the land, if the land was well laid down to grass; for myself, I should rather have it, than to have it plowed; for the amount of manure usually put on by farmers, will do more good as top-dressing, than otherwise applied.

In answer to the question put by those who attempt to show up Mr. P., by asking how do the farmers pay for their farms, paint their buildings, &c., I will say, on most farms, there are either wood, rock, or something else, which the farmer in the winter carries to market, which will bring the cash; if not, how does he do it? Five acres of corn will take the time of the entire season to cultivate, so the best judges say, viz., 100 days; and he gets in profit, eighty-five dollars to do all these things with, according to the estimates of the other writers. How many years would it take to pay the interest, taxes, and for the farm, if he paid $2000 for it, at the last estimate? S.

Cape Elizabeth, Dec., 1859.

REMARKS.—We meant no disparagement to Mr. P. or his article by our remarks.

For the New England Farmer.

AN OLD MAN'S OPINION OF FARMING.

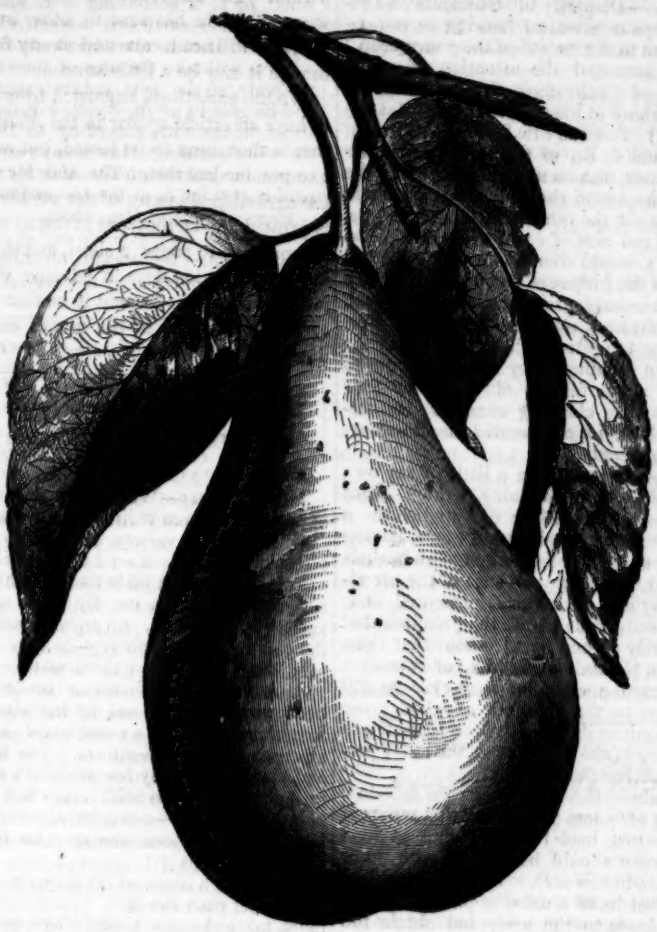
MESSRS. EDITORS:—I am glad to see the discussion going on in regard to the profit of farming; if no one had replied to Mr. Pinkham, I think I should have tried; but I am glad that abler pens are engaged upon the subject. That there is a secret blessing attends the labors of the honest, industrious farmer, I have no doubt, from my own experience; for I am located on one of the hardest spots of New England, and had very small means to work with, but have gradually been gaining, until now, I have as much property as I desire; all I wish for is that those who do the labor upon the farm may be well paid, and have a comfortable living, without spending the real estate. I think it is one of the mistakes of farmers, after they have got into years, and have enough to support them comfortably, to keep adding to their real estate, rather than to let their sons, or some other industrious young men, do the labor, and have what income there is more than they need for their own actual support. Farming is my delight, and if I cannot perform the labor now, I will try to encourage others to do it, and be content with the returns.

Some unknown friend has sent me a copy of the Middlesex County Agricultural Report, for which they have my hearty thanks.

Gloucester, Mass., 1859. THOMAS HASKELL.

PEACHES IN POTS.—In the orchard house of D. T. Coit, Norwich, Conn., says the *Homestead*, peaches are cultivated in sixteen-inch pots, or in boxes about the same size, kept in the grapery during winter, and removed to the open ground in June. Of course the trees are severely headed-in, and kept within small compass. They will bear about two dozen peaches each, and when thus managed are as sure a crop as any other fruit. In this sized pot they are easily managed, and a large number may be wintered in a small house.

MIXING PEACH AND APPLE TREES.—This practice is condemned by a writer in the *Prairie Farmer*, because the peach trees will die out sooner or later, and leave the borer and the old roots to bother for years.



THE BEURRE BOSC PEAR.

CALEBASSE BOSC.
MARIANNE NOUVELLE.

BOSC'S FLASCHENBIRNE.
BEURRE D'YELLE, *of some.*

Some of our most intelligent pear cultivators pronounce this as among the best varieties, and occasionally one among them becomes quite eloquent in its praise. We give, below, Downing's opinion of it, and that, with the beautiful illustration which we now present the reader, will remove all question as to whether it is a variety worthy of cultivation.

"The Beurre Bosc is a pear to which we give our unqualified praise. It is large, handsome, a regular bearer, always perfect, and of the highest flavor. It bears singly, and not in clusters, looking as if thinned on the tree, whence it is always of fine size. It was raised in 1807 by Van Mons, and named Calebasse Bosc in honor of M. Bosc, a distinguished Belgian cultivator. Having also been received at the garden of the Horticultural Society of London under the name of Beurre Bosc, Mr. Thompson thought it best to retain this name, as less likely to lead to a confusion with the Calebasse, a distinct fruit. The tree grows vigorously; shoots long, brownish olive.

"Fruit large, pyriform, a little uneven, tapering long and gradually into the stalk. Skin pretty smooth, dark yellow, a good deal covered with streaks and dots of cinnamon russet, and slightly touched with red on one side. Stalk one to two inches long, rather slender, curved. Calyx short, set in a very shallow basin. Flesh white, melting, very buttery, with a rich, delicious and slightly perfumed flavor. Ripens gradually, from the last of September to the last of October."

For the New England Farmer.

THE CORN CROP.

MR. EDITOR:—Disparity of statements and estimates among your practical famring correspondents in relation to the "cost" of the "corn crop," has doubtless attracted the attention of many. Mr. Pinkham, of Chelmsford, throws down the gauntlet, and labors at length with figures, (as the politicians say,) "that can't lie." Mr. Sheldon, of Wilmington, and J. R., of Concord, by another showing of figures, make a more hopeful case. We much prefer the latter showing, as it results in round profits, while the other ends in serious loss. Huskings, and red ears of corn, with their pleasant associations, would come to an end. Sad and discouraging is the picture of our friend P., which would not particularly promote the public weal. New England farmers need the home incentive. Unhappily, they too often sigh for a home in the West, and when obtained, they too soon begin to pine and sigh again for the old home of their youth, with its once cheering comforts, its hallowed associations, its consecrated hearth-stone, so dearly remembered.

But I was about to give you a little of my own corn experience, and in so doing, I think it not amiss to state, that in 1845 or 6, I applied for a premium at the Essex Agricultural Show, having by careful measurement, raised ninety-two bushels to the acre. I supposed myself sure of the premium, but the Byfield Alms-house presented their claim for 116 bushels, so I took the premium that I felt was scarcely second best. About that time, Rev. Mr. Allen, (I think it was him,) of Plymouth County, presented a claim of some 125 to 130 bushels or more to the acre, out of which arose quite an acrimonious debate between himself and Mr. Buckminster of the *Ploughman*, the latter pertinaciously doubting the quantity.

I name the above three cases of corn growing, (to say nothing of "some pumpkins" that went out of my field in cart loads) to show that in good seasons, no farmer should be content with 30 or even 60 bushels to the acre. Why haul manure half to three-fourths of a mile, to put on shallow soil, say ten loads to the acre, and obtain 100 bushels of corn from four to five acres? Because it "hoes easy." Why not plow up deep, and pulverize one good acre nearer home, and put in with the plow the forty loads of manure, and get as much from the one acre as from the four or five on poorly cultivated land? It costs no more to cultivate the one acre that will give the 100 bushels, than it does one out of the five that shall give you but 20 bushels. It is a labor crop, very unlike a grain crop; once planted, then to wait patiently till it matures. The fatal errors of the day are, the too much cultivation, or breadth of land, for the manure to be applied. H. P. P.

Brooklyn, New York, 1859.

TO CORRESPONDENTS.—We have received several seasonable and valuable articles, which we shall soon find room for; and while we express our obligations to the attentive and intelligent correspondents of the *Farmer*, for their numerous favors, we would say that their circle is constantly increasing, and that in order to give a hearing to all, it becomes necessary for each to be as concise as the nature and importance of his subject will permit. The critics are after Mr. Pinkham with a sharp stick; he has sent us other important queries, and will not be alarmed at any fair treatment, though it may be a little severe.

We are sometimes requested by correspondents to have an article appear in the *Monthly Farmer*, that is then next to be issued, but are rarely able to accommodate them. The *Monthly* is made up of the agricultural matter of the weekly papers, and is printed and stereotyped as fast as matter enough accumulates to cover a sheet, and the whole number is got out ten days in advance of its date, in order to enable us to mail it so that it may be received by the first of the month on which it is dated.

For the New England Farmer.

THE NATIVE BLACKBERRY---THE LAWTON.

MR. EDITOR:—We have in this vicinity what appear to be three varities of the blackberry.

1. The trailing variety, with berries nearly round, often imperfect, each seed enclosed in a larger envelope of pulp and juice than the high-bush berries, and the surface usually rather uneven. This variety is quite acid, and ripens immediately after the common red raspberry—is very acceptable for pies, but worthless for the dessert.

2. A variety which seems to be intermediate between the trailing and the high-bush. The bush sometimes grows to a considerable hight, but is of a pendant or drooping form. The fruit, in form and size, very nearly resembles the trailing variety, but is much less acid, and when well ripened, is quite palatable—not generally very productive, but sometimes specimens may be found bearing very large crops.

3. The high bush, which grows much taller and more erect than the last, usually producing fruit much more elongated, seeds less prominent, but little acid, even before fully ripe, and the quality much superior to either of the others in all respects.

These three varieties are, I think, sufficiently distinct to be classed separately, although, by mixing, specimens are produced of all grades from one to the other. These last, however are not nearly so abundant.

The Lawton or New Rochelle, which I have *tried* to cultivate to a small extent for a few years past, evidently belongs to the intermediate variety, although I have found it considerably more acid than the wild berries of its class, and so far as my experience goes, this acidity is retained to such an extent as to make the fruit unfit for the dessert even when allowed to remain on the bushes until perfectly ripe. Add to this the want of hardiness—the plants having been almost invariably killed to the snow line—and you have my opinion of the value of this fruit for Massachusetts, at least.

The Lawton is certainly very large, and probably quite productive when not winter-killed, and for aught I know, may, in a milder climate, be all it is recommended, but is it not possible, Mr. Editor,

that many who prize it so highly have never seen or tasted the real high-bush blackberry? I ought to add, perhaps, that my berries were raised on land which has produced eighty bushels to the acre, good sound shelled corn, and that seedlings from the wild blackberry within a few rods of them have stood the winter perfectly.

The Dorchester I have never tasted, but the general appearance of the fruit, as I have seen it in your city, is like the high-bush, except that it is not so long as most of the wild berries.

The blackberry, when in perfection, is a most delicious fruit for the dessert and for pies, and by the aid of preserving cans, may be had all the year; its introduction to the fruit garden is, however, quite recent, and the cultivated varieties are consequently few in number. I would suggest that those who live in districts where this fruit grows in abundance and perfection, would do well to mark those bushes which produce most abundantly of the largest sized and best flavored fruit, and at the proper time transplant them to their gardens. By a little attention to the time of ripening, too, varieties might be obtained which would yield us an abundance of this most wholesome fruit, from the usual raspberry season until the weather becomes too cold for them to ripen.

Ashfield, Dec. 19, 1859. WM. F. BASSETT.

FLOWAGES.

The committee appointed by the last Legislature to inquire into the causes of the flowage and destruction of lands in the valley of the Concord and Sudbury rivers, recently had another hearing at the State House, which continued several days. The counsel for the Petitioners present, were Judge MELLEN, Judge H. F. FRENCH and D. L. CHILD, Esq. For the Respondents, Judge ABBOTT, B. F. BUTLER, Esq., and Messrs. SOMERBY and PRESTON. The questions at issue in this hearing are questions of grave importance to the farmers of the Commonwealth, as they are, virtually, whether their lands shall be taken from them, and devoted to other purposes than those of agriculture, contrary to their will, and without leaving them any remedy or means of redress. Such, we understand, is the condition in which this vast tract of land now lies—wrested from the occupation of its owners by the gradual encroachments of water, under the sanction of laws, perhaps, passed in an age when manufactures were deemed of more importance than raw agricultural products, and what is worse than all, passed without giving the person whose lands were destroyed any reasonable remedy for the injury inflicted upon him.

This land lies in one of the most fertile and beautiful of our New England valleys, and is skirted with what were once rich and verdant pastures, and thrifty forests of valuable fuel and timber. Chilled with the accumulation of cold water that is backed up by the flooded meadows, these pastures are covered with innutritious water grasses and other worthless plants, while the trees that once stood clothed in thrifty verdure at their bases, are now stunted in their growth, and hung with gloomy lichens and mosses, the fitting funereal drapery of their dead or dying condition.

If this land were remote from railroads, or inaccessible to large villages and towns, its destruction would be comparatively unimportant. But such is not the fact. It lies in the very heart of the most dense population of New England. Numerous county roads of the best character traverse its outlines and cross it in every direction; railroads pass over it and skirt its borders, while the best markets in the country surround it on every side, so that from its centre to its circumference the products of this once fertile valley can be brought to a ready market within the space of six hours!

Formerly the river that flows through this land teemed with fish that periodically came up from the ocean, and thus formed an important article of food to the people. Blue-joint, red-top and other rich grasses covered the meadows, upon which the farmer mainly depended for the winter feed of his cattle, so that the English or high land grasses could be spared for market, in order to raise cash for the payment of taxes, and articles for family use, which could not be produced upon the farm. Thousands of dollars were also annually received for cranberries which grew in spontaneous luxuriance upon these meadows, which, added to the fish in the river and the grass growing upon its banks, gave these lands a value equal to the best uplands of the farm.

Under the present influence of water upon them, these meadows are gradually becoming a vast tract of pestilential swamp. Those that would command $75 per acre forty years ago, cannot be sold at any price now,—their possession being considered a curse, instead of a blessing. Hundreds of tons of hay—poor in quality now—rot upon their surface annually, while the miasma and pestiferous vapors arising from such vast quantities of decomposing vegetable matter, together with their inability to cultivate or in any way improve the soil, has driven families from their homesteads to seek a living in more favored regions. Dwellings which were once the abodes of thrift and competence, now stand as gloomy monuments of the fatal march of the invader; no feet go in and out at their doors, as they were wont; no hopeful industry scatters the seed, nor grateful hearts beat over an ingathering harvest; no smoke curls from their chimneys, no herds low on the hills or feed in the stalls where once they sought their accustomed food! The land has become a prey to suffering, disease and death, through the mistaken legislation of a former age!

This state of things ought not, cannot continue. It must be clear to all, that any legislation that confers special favors upon one to the detriment of another, cannot promote the best interests of society. It creates dissatisfaction with the laws, encourages litigations and hatreds, and checks the prosperity and happiness of the people of the Commonwealth. The evil of which we have been speaking, is not confined to the valley of the Concord and Sudbury rivers alone—it is felt in nearly every portion of the State, as is made evident from the sympathy and encouragement which has been extended to the petitioners in this case from almost every quarter. And while they do not mean to desist now, or in the future, to seek a lawful remedy for the grievous burdens they have so long borne, and still continue to bear, they have another object to pursue, which is as patriotic and honorable as it is just. This object is to arouse the public attention to the injustice and pernicious tendencies of some of our laws in regard to the flowing of another person's land without his consent, and to secure such legislation as to restore natural rights which have been taken away, and protect property from such aggressions in the future. In this laudable object the petitioners ask—and no doubt will receive—the hearty co-operation of the whole agricultural community.

That laws of such an unjust and oppressive character remain in force at this day shows the forbearing and law-abiding character of our people. For forty years they have diligently sought a remedy in the Courts, and have been turned out of them all, because, forsooth, somebody's great-grandfather had a *vested right* to throw a dam across the river and flow *ten thousand* acres of the best lands in the State, at a time when a single grist mill was worth a whole township of land. Now that the circumstances are reversed, when grist-mills are found on every stream, reached by every road, and are driven by wind, steam and caloric, all over the country, it is time that these *vested rights* should yield to the public good.

Through a long series of years there were two things that would arouse the English people to desperate resistance, more than anything else. One of these was oppressive taxation, and the other *unjust* and *odious monopolies*. These were granted, more or less, through the reigns of Henry VIII., Elizabeth and James. One favorite had the monopoly of selling all the salt, another all the wines, and so of various articles. So it is in Italy at this day. One family has the monopoly of furnishing all the grey horses, another of the article of tobacco, until so many articles were farmed out to corrupt sycophants and favorites, and the prices demanded for them were so extravagant and oppressive, that these and other exactions became so intolerable in Italy as to cause the bloody outbreak of 1848.

We do not mean to intimate that any pecuniary considerations accrue to the government in the monopolies that exist in our State, *under the sanction* of law—but only that they are relics of an oppressive age, and that their influence upon the people has the same tendencies that they had upon our trans-atlantic brethren.

This great question is already before the people of the State, in country, town and legislature, and we ask our friends to give it careful consideration.

For the New England Farmer.

POTATO BLAST IN A CERTAIN CASE.

MR. BROWN:—In a late number "Farmer's Boy" labors to prove the cause of decay upon my potato vines a few days after the shower mentioned by me in my statement of facts published in a previous number of the *Farmer*.

He says, "there was a predisposing cause, upon which the rain and sudden change of the atmosphere acted," and gives what he supposes to be that cause. Now if his theory is correct, I am unable to see why the vines within a few rods from those first turning black, and only on eight or ten feet higher ground, should remain green until the middle of October, when they were killed by frost.

In both locations the potatoes were taken from the same basket of seed, and the manure was laid from the same load; therefore, if the seed was previously infected in one case, it must have been in the other. While in the first mentioned location the vines were nearly decayed and the potatoes badly rotten, in the last the vines were green until late in the fall, and the potatoes all sound, except in some hills where the grass was not all destroyed by cultivation.

Your correspondent has given but one cause, while many others acted therewith to bring about the mentioned results, two of which I will mention, *location* and *soil*. H. BARBER.

Warwick, Dec. 19, 1859.

SOMETHING WORTH KNOWING.—One day while purchasing a lot of dried fruit, we discovered small pieces of sassafras bark mixed among it, and, upon inquiry, were informed that it was a preventive against the worm. It is said that dried fruit put away with a little bark, (say a large handful to the bushel,) will save for years, unmolested by those troublesome little insects, which so often destroy hundreds of bushels in a single season. The remedy is cheap and simple, and we venture to say a good one.—*Lexington Flag.*

BONES FOR FRUIT TREES.—There is nothing like decaying bones for all sorts of fruit trees. They are perhaps best for pear trees, next for apples, and then for quinces; but are good for any kind of fruit unless it be cranberries, which seem to live and grow on little but air and water. If it is not convenient to reduce the bones in sulphuric acid, break them up small and place them about the roots of the tree.

EXTRACTS AND REPLIES.

IS FARMING A PROFITABLE PURSUIT?

"Facts are stubborn things."

Is farming profitable?

Mr. Pinkham says not; I would not say it is the most profitable business, but a man can live at it, if so disposed. I was bred a mechanic, but left my trade and took hold of farming, and when I commenced was not worth one dollar. I paid $4030 for my farm, then had all my stock and tools to buy. I have had the good luck to pay for the farm, stock and tools, and have put on above $3000 worth of buildings since, and do not owe one dollar to any man. I have made it all from my farm, although farm fences, buildings and interest, have cost me over $10,000. Let it be worth what it may, I have paid so much, and made it from the farm itself. I have never been in any speculation but farming.

I consider the great secret in farming is, to take hold of one string and pull that steadily when the wind and tide are against you. Keep beating, and you will gain some,—and when the wind shifts in your favor, you are all ready to sail; then comes a good harvest. But the man that shifts every time the wind does, is always beating against wind and tide, therefore he condemns the business he is in, and complains of hard times. I do not brag of being rich, or that our New England farmers can be *very* rich by mere farming, but I do argue that they may make a good living and lay up a little against a wet day. A. B.

Barre, Vermont, 1859.

—

A FARM OF NINE AND ONE-HALF ACRES.

I think of buying a small farm of only nine and one-half acres, all under a high state of cultivation. The buildings are small, but very comfortable and in good order. The price is $2200. Can I make it profitable to buy that farm, and set half of it with apple and pear trees, and make a part or the whole of the rest into a garden?

I should like to have Mr. Ed. Emerson, of Hollis, N. H., answer this. C. L. W.

Westboro', Mass., Dec., 1859.

REMARKS.—Mr. E. is always ready to do good, and we hope he will make it convenient to reply to our young friend. We can readily see the difficulties that lie in the way of replying where surrounding circumstances must have so much to do with ultimate success.

—

CURE FOR WENS ON CATTLE.

Can you inform me of a certain cure for a wen? If so, by so doing you will confer a favor on myself and others. E. A. MORSE.

Townsend, Vt., Dec., 1859.

REMARKS.—We give below two remedies sent to us and published in the Monthly *Farmer* for 1857.

"I take a tin cup, large enough to cover the wen, fill it about half full of unslaked lime, then nearly fill it up with soft soap, bind it on the wen tight, with strips of cloth or straps so that it will not come off. As the lime slacks, it eats the wen completely off. I tie the cow, or ox, to a hook in the beam in the centre of the stable, to prevent their rubbing off the cup. Let them stand tied four or five hours, and the work is done."

"One year ago, last fall, I had a cow which, from all appearances had a wen growing on her neck; I at first administered a plaster of salt and tar, and drew it to a head, and in the spring I procured fresh green cicuta leaves, and boiled them up and bathed the wen in the solution, leaving the leaves in; it wholly dried up in four weeks, so that she fatted sufficiently for beef. I have known others in this vicinity to cure them with the same remedy and keep them for years. Should you consider this of sufficient worth, you are at liberty to insert it in your valuable paper."

—

MOWING MACHINES.

Is there a mowing machine that is suitable for common farm use—if so, which is it? There must be one possessing advantage over the others. Will any machine work over our rough land, if it is tolerably clear from stone? L. B. SMITH.

Exeter, N. H., Dec. 20, 1859.

REMARKS.—There are several mowing machines, one of which we think a large farmer may profitably purchase and use; and there is no one, perhaps, that has not some good quality. Which is the best one, all things considered, we are not able to say, because we have not used them all, and feel unwilling to give an opinion of a machine unless we have used it under our own hands long enough to understand it.

Large stones on a field are an impediment, but they do not preclude the use of a machine, unless they lie very thick. We annually mow orchard land with a machine, where the trees stand only thirty feet apart.

—

HUNGARIAN GRASS OR HONEY BLADE.

I have raised some Hungarian grass this year and it is as good as the papers stated it to be last spring. I sowed some pasture land with it last spring, and it yielded at the rate of 3½ tons to the acre, and at the rate of 32 bushels of seed to the acre. The seed weighs 50 pounds to the bushel; it wants to be sowed soon after planting corn, a half bushel of seed to the acre. It is good to sow when you wish to seed with Timothy. My horse and cattle eat it as readily as the best of hay. I sowed some the 22d of June, which did well.

Painesville, Vt., 1859. HARRISON GRIFFIN.

REMARKS.—A head from the seed, sowed June 29, came with this note, which was large and well filled.

—

CROPS ON BLACK LOAM.

Will land that is of a fine black loam, be suitable to raise onions and other garden vegetables, and how should it be manured? M. W.

West Fairlee, Vt., 1859.

REMARKS.—We presume to plow in plenty of green manure in the fall, cross plow in the spring, and if to be sowed with onions, apply unleached ashes plentifully.

For the New England Farmer.

TILE DRAINING IN OHIO.

HON. H. F. FRENCH:—*Dear Sir*:—I have just finished reading your valuable work upon "Farm Draining;" more valuable on account of the particular information in regard to tile draining. I have been experimenting some little in this branch of agriculture. I own a farm in this place of about 150 acres. I have often thought that it could be much improved by a system of thorough draining. The soil varies; some clay and some sand; but the subsoil of most of it is a stiff, red clay; it is what most of our Western farmers would call an exceedingly dry farm; but I am convinced that it can be improved, and I have begun my improvements by laying tile. I have often seen notices of tile draining, and their benefits, in most of our agricultural papers, but as yet, have been unable (until the receipt of your book) to gain any satisfactory information in regard to laying tile. I began last spring by "going ahead," instead of being "all right." I laid most of my drains from eighteen inches to two feet, the latter being my maximum; but since reading your work, I am afraid it will be like "Love's labor lost." I am at present draining a springy side-hill, the upland surface of which is a sand ridge, and very full of water. The hill, I find to be of various soils, interspersed very frequently with a ridge of clay, holding water in check. I intended making a main drain through the centre of the piece, of four inch tile, and then running two inches into this diagonally; but fortunately, your chapter upon that subject wholly changed my mind on that point, and I am now convinced that my drains would have been of little or no use had I followed my former intentions. I have a drain along the foot of this hill to the stream, some sixty rods; this is of five inch tile. I shall now drain with two inch, down the hill, putting them fifteen feet apart, and three feet deep. I intend making a vineyard of the hill, which faces the east.

As to the cost of my beginnings, I am not able to give a fair estimate, my ditching being mostly done by myself and man, and the tile manufactured upon my own farm. The price of ditching, here, is from fifteen to twenty-five cents per rod; but I think it can be done cheaper, as all the ditchers will persist in claiming that they cannot dig without a wide top and bottom; but I find that I can work very well with sixteen inches top and four bottom. I have, as yet, no very good tools, not being able to get them; for tiling, here, is in its infancy, most of our farmers not even knowing what they are for, and those who do, are afraid they won't work, or won't pay. I shall recommend them to buy your work, and I hope we shall hear from you often on this subject. As to the price of tile, we are some cheaper than in your neighborhood. I have one of Penfields & Mattice's machines. The grinding and pressing is all done by horses, and at the same time the tile run upon boards about three feet long—one man puts in the boards, cuts off the tile, and takes away the boards again—whilst another feeds the mill. Two men will make about 3000 two inch tile per day; larger ones in less proportion. We make both horse-shoe and sole tile; we sell by the rod, 16 pieces to the rod; 2 inch, 16 cts. per rod; $10 per 1000; 3 inch, 25 cts., or $15; 4 inch, 35 cts., or $21; 5 inch, 50 cts., or $31; 6 inch, 75 cts., or $46 per 1000. A deduction of 10 per cent. will be made on $100, and all orders over $10, delivered at the cars free of charge. We shall make pipe tile next season, and think we can sell them at 25 cents per rod, with collars; that is two inch. You speak of soft tile. I am a new beginner, and would not like to sell or use anything which would not be good. It is impossible to burn all the tile red, or so that they have a clear ring; but where they will stand a good soaking, and then a severe frost, do you think it will be safe to lay them?* I intend draining a piece of 26 acres next season, and shall follow your plan as nearly as possible; and any further information which you can give me, or refer me to any works upon the subject, will be thankfully received. Hoping to hear from you privately, at some of your leisure moments, and publicly, as often as you get anything new,

I am yours, truly, D. D. BENEDICT.

Norwalk, Huron Co., Ohio, Nov. 21, 1859.

TO THE HON. H. F. FRENCH, EXETER, N. H.

* Color is not the only criterion of the burning of clay. Some clay takes a much higher color than other clay, and some will never become red by burning. Tiles that will not crumble by wet and frost are usually hard burnt enough.

We are glad to hear that draining is going on at the West. H. F. F.

For the New England Farmer.

EDUCATION OF BOYS.

MR. EDITOR:—I have two sons, one aged sixteen, the other fourteen; both active and intelligent as other boys of their age. Their time has hitherto been taken up at school, and they have attended the best school in our town, even a full term at what is called the high school. I have not the means of putting them through a college, and they have no desire to enter one, with a view to engage in either of the learned professions, because they have an impression that a greater part of those who do thus study derive very little benefit from their studies. They are willing to be farmers, if they can be substantial and respectable farmers. They have the means of purchasing a moderate sized farm for each. What will you advise to be done with them? When the project of an agricultural school was first started in the State of New York, I had serious thoughts of sending one or both of them there, to try whether a good farmer could be bred at a school; but I have lately seen that the college founded in Michigan, under the most favorable auspices, has slumped through, which raises a doubt of the success of the New York college, notwithstanding it is favored with the untiring vigilance of one of the best of supervisors, in Mr. Secretary Johnson.

December 25, 1859. P.

REMARKS.—Put your sons on a good farm for two or three summers, where they will earn their living, and at the same time gain such a practical knowledge of their business as the boy does who enters as an apprentice upon any of the mechanic arts. The owner of the farm upon which they reside should be able to direct their operations intelligently, and to call their attention to the theories of the growth of plants and animals, to the advantage of cultivation manuring and high to

the principle of draining, irrigation, subsoiling, fallowing, tree raising, training of plants for ornament or use, or whatever else will beautify or replenish the earth, and at the same time bless mankind.

The second summer the boys might obtain wages, and then earn something with their own hands to aid in stocking their farm. For one or two winters that succeed their summer labor, they might pursue such studies as would have a direct bearing upon the cultivation of the soil, and make themselves familiar with the theories or experiences of those supposed to understand the matter better than themselves. One winter, however, should be spent upon the farm where a good stock of cattle is kept, so that a thorough knowledge of the modes of winter feeding and tending of the various kinds of stock should be gained.

With a proper *reading up of the subject*, as the lawyer or the physician reads, and the experience which we have already suggested, we believe a young man may be better qualified to enter upon and manage a farm, than by any other process within our knowledge.

UNITED STATES AGRICULTURAL SOCIETY.

The *Eighth Annual Meeting* of the United States Agricultural Society will be held in Washington city, at the Smithsonian Institute, Wednesday, the eleventh day of January, 1860. Other agricultural societies are invited to send delegates.

Important agricultural topics will be publicly discussed, among them "The Establishment of a Department of Agriculture;" "The Steam Plow;" "Physical Geography, in its relation to Agriculture;" "Agricultural Statistics of the next Census;" "The Sorgho and Imphee;" "Under-draining;" and "Forest Trees."

Gentlemen who may wish to become Life Members of the Society, can do so by paying or remitting ten dollars to the Treasurer, Hon. B. B. French, Washington City. This will entitle them, without any further payments, to the full privileges of membership—among these are: free admission to all exhibitions of the Society, the annual volumes of published Transactions, the *Journal of Agriculture*, and the large and elegant Diploma. The fee for Annual Membership is two dollars, which ensures the receipt of the *Journal of Agriculture*.

POTATOES FROM THE BALL.—Mr. SAMUEL GUILD, of West Medway, informs us that in the spring of 1858 he planted several potato balls, and procured from them one pint of potatoes, which he planted in the spring of 1859, the yield from which was *one bushel* of large, and fine potatoes.

For the New England Farmer.

FEEDING CATTLE.

MR. EDITOR:—I observe that a great diversity of habits obtains among farmers, in relation to feeding cattle, hogs, &c. There are some who feed hogs twice each day, others three times, and others more. There are some who seem to pay their porkers for squealing, as they seem not to think of them except when they hear their music; but they pay them for every piece of squealing, as promptly as concert-singers are paid for their performances. Now will the editors and contributors of the *Farmer* please to inform us which of these habits, in common circumstances, will make the best return for provender? I caught up my pen to inquire about cattle; but it pushed off after the pigs.

It is of more consequence than the price of a poll-tax, to any man who owns a single cow, to know how to feed that cow in the best manner to secure her health, or growth, or quantity and value of milk. I would confine my inquiry to the question, How often should she be fed, supposing her common food to be good, dry hay. Is it the case, or not, that frequent feeding, of a little at a time, is unfavorable to a proper digestion of what is eaten? Is the constant uneasiness of cattle, which are thus kept between hunger and fullness, a drawback on their growth of flesh or fat?

I think a man who appeals to the laws of chemistry and physiology, as generally understood and applied, without consulting the man at the barn, will be quick to answer. But what will "the old man at the barn" say? I do not mean old Mr. Skinflint, who thinks it a saving to make his cattle eat up their hay so close that they would almost eat pea-brush, to fill their vacant stomachs; I mean the man who raises as good, and large and healthy cattle as can be found, and does it by plain feeding. I want to get the opinion of that old barn-taught cattle-grower, on this important topic.

It looks quite to me as though a good, satisfactory meal, with full time to digest it before feeding again, would do best; and I am not satisfied without the opinion of "the old man at the barn;" for nature itself is the only correct chemist and physiologist; and the old cattle-grower has had such an opportunity of seeing results following her experiments, as many of us would like to profit by.

Mr. Editor, if you will put the question to that old stable-physiologist, and return us an answer through the columns of the *Farmer*, you will very much assist some inquirers. In the meantime, will you give us your opinion upon the point?

Lee, N. H., Dec., 1859. C.

REMARKS.—This is the kind of agricultural knowledge that should be well understood. We have no doubt, whatever, that regular feeding of *three* or *four* times in twenty-four hours is the best. Begin in the morning with a feed of the poorest hay that you must use, and continue with better hay until the appetite is nearly satisfied. Then leave them clean mangers until noon, feed again, and so at night. We gain this opinion from an actual experience in various ways of feeding.

For the New England Farmer.

FANCY FARMING.

MR. EDITOR:—Your Chelmsford correspondent has made use of an expression in his last communication, which I propose to make the text of a few remarks. I have nothing to do with his notions about the unprofitableness, the unhealthfulness, or the demoralizing influence of New England farming.

He very kindly advises "the lawyers, the doctors, the preachers, and the soft-hand gentry generally, to observe the familiar adage, 'Shoemaker, stick to thy last.'"

I think he has intimated that farmers cannot live by their legitimate occupation, but are obliged to resort to trading, and other occupations, to eke out a living. Now, why may not men of other vocations enjoy the same privilege. If they find it a matter of necessity to resort to a little farming to eke out the deficiencies in their business, why should the farmers complain? And if they should, at times, talk a little about their "little farming," why should anybody object to this? Farming is a business in which an earnest, simple-hearted man may become very deeply interested, and if he should write his thoughts about it, or seek to obtain more knowledge about it, why should he be told to "mind his own business?"

The farmer, when he wishes to know anything about law, or medicine, or theology, very naturally consults the lawyer, the doctor, or the preacher, and when they wish to know anything about farming, they very naturally consult the farmer. Whom else should they consult? Does not friend Pinkham claim the right to know anything about law, medicine or religion? Does he confine his attention exclusively to his farming? Perhaps he has done so, and this is the reason why he is so much in advance of other men in agricultural knowledge. But if he were prohibited from attending to law, medicine, religion or politics, I think I am safe in making the inference, from the spirit of independence he shows, that he would be among the first to join "a tea-party" or even the "Continental army." The farmers are not bound to follow as authority the crude speculations of inexperinced men, and I trust they generally have discrimination enough to select the good, and cast the bad away. But why other men have no right to interest themselves in farming matters, I confess that I, a New England man, cannot understand. The attempt, in the same connection, to cast a slur upon professional men, and diminish their influence by calling them "soft-hand gentry," is, to say the best of it, indicative of a sad want of taste. Why should he, of all men, reproach others for not making their hands hard with labor, when he is striving to show that laboring upon the soil is both unprofitable and demoralizing? But seriously, who are the "soft-hand gentry" to whom your correspondent refers? Are they not, for the most part, the sons of New England farmers, brought up upon the farm, and accustomed to till the soil in their early days, and still bearing in their hands the marks of youthful toil? Did not many of them leave their paternal acres, that younger brothers might occupy them? Have not many sought other occupations through the influence of just such ideas as Mr. P. is advancing, viz.: that farming is a hard and unprofitable business? These are old ideas that have been repeated over and over. If any have sought other occupations from such influences, it seems to me peculiarly unfair now to reproach them for being soft-handed, which, I take it, means, not working for their living.

If there is any class of men in New England who are hard-working men, it is the professional men. They labor hard to acquire the preparation for their professions, and they labor in the practice of them more hours than do farmers or mechanics, and their labor, too, is of a kind which is more exhausting both to mind and body. From various reasons, many professional men, as well as mechanics and merchants, engage more or less in agricultural pursuits. Some from want of success in other pursuits; others, because they find as they advance in life, a taste for the pursuits of their early youth reviving within them. But more, because the cultivation of the soil is the natural employment of intelligent men, an employment in which they can indulge their tastes and find an innocent occupation, at the same time promotive of health and enjoyment. Why should not such men bring into exercise in their agricultural pursuits the intelligence and the careful habits of observation which they have acquired in their previous occupations? If any of them have acquired wealth, and are disposed to make experiments, and see fit to publish the results, why should practical farmers complain? Are they injured by it?

May not the unfavorable result of an experiment, made by some one who can afford the loss, deter them from a ruinous expenditure? All the slang about "gentlemen farmers," "soft-hand gentry," "book-farmers," and assertions that most of the agricultural books and essays are written by men who are not "practical," "mere theorists," is simply contemptible. It is mostly used either by very ignorant men, or by men who are very conceited, and wish to set themselves up by pulling down others. Some who have acquired a good deal of information by conversing with scientific men, with men who have read and thought much, and given them the results of their studies, undertake to ridicule science and books. These men, who have thus acquired all they know from books at second-nand, who are really indebted to the researches and experiments of science for all their own success, ought to take a higher position, and exert a better influence upon the rising generation of farmers.

Who is the practical man? Is no man practical except he who labors the whole time with his own hands? Is not he a practical man who tests opinions and theories by experience; who refuses to accept theories until they have been confirmed by experiments made by himself, or by others on whom he can rely? May not a man be eminently practical, and not labor with his hands at all? May he not have a practical mind, and be a careful observer and a close thinker, and his opinions and judgment be worth vastly more than those of the mere routine laborer? Some men learn nothing by experience. They have not learned how to learn. Other men by making the facts which they observe the subject of thought and study, rapidly acquire wisdom by experience. The experience of a few years is worth more to them than the experience of a life-time is to others; and just in proportion to their ability to draw accurate re-

sults from the facts they observe, is the value of their opinions, whether they are soft-handed or hard. The farmers in Massachusetts are more indebted than they are aware, to the efforts of the preachers, doctors, lawyers and commercial men, for all the improvements in agriculture, and for the development of the agricultural capacities of the State. This might be abundantly proved by a sketch of the history of agriculture in this State. But I have already occupied too much of your space, and must bid you adieu. H. S.

For the New England Farmer.

"COSTS MORE THAN IT COMES TO."

This phrase has much meaning in it, and is worthy of being borne in mind in most enterprises. In none more than in the labors of the farm.

We see persons expending large sums in clearing stones, building walls, filling quagmires, leveling knolls, &c. &c., without once computing how the account is to be balanced. We hear of premiums offered for the largest products upon an acre, without regard to the use of means by which they are produced. All such enterprises are visionary and discreditable. The only sure mode of proceeding is to contemplate the end from the beginning; and to take into view, as far as practicable, all intervening incidents.

Fancy farmers may derive benefit from these considerations. Those who drive fast horses, or magnify their oxen beyond reason, will find in the end, it would have been better to count the cost before they started. The same may be said of those who attempt to force all their products out of a single acre. I have often doubted whether the attempts of those, who look upon themselves as the guides of others, were not mistaken in these matters. Instance, when premiums are offered for the greatest quantity of Indian corn, grown upon an acre, not less than *one hundred bushels*; is such an offer wise? I think not. Because, under extraordinary circumstances, one hundred bushels of corn may have been produced upon a single acre (though I have never witnessed such product,) it is no good reason why this amount should be fixed as the minimum crop, for which a premium should be awarded. All the circumstances of the case, the quality of the land, the appliances made, the variety grown, the peculiarities of the season, are to be taken into view, and when these are considered, that experiment which presents a result most worthy of imitation and commendation, is the one for which a premium should be awarded. P.

December 26, 1859.

FRUIT IN MICHIGAN.—While the rich soil and bleak winds of the Western prairies appear rather unfavorable to the growth of fruit, Michigan presents unusual inducements to the fruit grower. A single firm have this season purchased near five thousand barrels of apples in the village of Clinton, Lenamee county, and some fifteen hundred in Tecumseh. A correspondent of the *Michigan Farmer* says fruits mature at Detroit nearly or quite as early as in central Ohio, two degrees further south.

For the New England Farmer.

HISTORY OF FOUR PEAR TREES.

I sent you a little history of my flower garden, some two or three years ago, which was so favorably received, I now send you the history of four pear trees. I write the account, partly for my own amusement, but more to add another word to the many already said and written on the subject of setting out trees.

Forty years ago, the person now owning and living on the farm from which I write, set in his garden four small pear trees. The soil was favorable; they throve finely, with no extraordinary care, and were in full bearing in a few years, affording two varieties of good pears; one ripening the last of August, the other about four weeks later; thus affording fruit in abundance for a large family, besides much to dispense in a friendly way to friends and neighbors; but the great good resulting from two hours' labor is yet to be told.

Hundreds of seedlings have sprung from the seeds, from imperfect fruit decaying under those trees; those seedlings, being removed to favorable situations, have since been grafted with all the varieties of pears that flourish in this latitude, and there are many of a delicious quality; the Bartlett growing in great perfection here; the Seckel, the Flemish Beauty, and many others which I will not take time to name.

The seedlings springing from those noble pear trees have been sent in all directions, and rare plants for the flower border, fine young fruit trees, choice grape vines, and much that is desirable, have been received in return; not only has a double benefit arisen from that two hours labor forty years ago, but a kindliness of feeling has been promoted between persons hitherto unknown; and an interest exists relating to the success of each other in gardening, increasing the taste for the same, which is so promotive of good health, and which so adorns and beautifies, many of our New England homes.

North Hartland, Vt., Dec. 29, 1859.

For the New England Farmer.

BUTTER MAKING IN WINTER.

MR. BROWN:—I will merely mention my experience in making butter in winter, hoping it may be an advantage to Mr. Leonard, for I should think it would be a real trouble to lose, or about lose, the use of his cows. I set my milk, after being strained through a cloth strainer into a kettle of hot water, occasionally stirring it in order that the cream or scum shall not rise until it is nearly scalding hot. Then it is set in a cupboard in the room where we live, which proves about the right temperature, and the cream will rise in about thirty-six hours. It is then taken off and set in a cold room, and so repeated until enough is gathered for a churning. The cream is then set in a warm room until it is the right temperature to churn. I only churn from five to fifteen minutes, and never have lost but one churning in ten years' experience. Two years ago I made in the same manner one hundred pounds, which sold in our village at the highest prices. Carrot juice is an advantage to both taste and looks.

Reading, Vt., 1859. A SUBSCRIBER.

For the New England Farmer.

A NEW TRIAL TO BE MADE IN FARMING.

MR. EDITOR:—I have been amused as well as edified by the several pieces which have appeared in the *Farmer* lately concerning the "profits of farming." I notice a wide difference of opinion betwixt some of your correspondents, and am inclined to believe that either one is nearer right than the other thinks him to be. The fact is, farming is some like the United States Constitution, it can be made to read either *pro* or *con*. Being a constant reader of the *Farmer*, I think I glean a great deal of valuable information from its columns, but perhaps a little practice will do me some good; people will often learn something by expressing their own opinions, that they would not while listening to others.

About a year ago, wishing to settle in some business, and having a capital of about $800, after careful deliberation I concluded to enter the list of farmers; accordingly I purchased an old worn-out farm of one hundred acres, up here amongst the Green Mountains, for which I paid $1200, and after buying necessary tools, a team and some other stock, I find myself in debt about $800. Now, I think, Mr. Editor, that if farming cannot be made profitable by me, at least, I shall soon find it out, and you shall be duly apprised of the fact. It is evident to me, however, that farming in this section is not made to pay, at present. The land generally is uneven and stony, and is better adapted to the dairy business, raising stock and fruit, than to raising grain. The most of the farms about here were bequeathed to the present owners by their ancestors, and they, in turn, will leave them to their children, the land continually growing poor, and each succeeding tenant poorer. How long they will last in this way I don't know, for they were worn threadbare years ago, each generation doing their best to rob those who may come after them. I suppose this is the kind of farming friend Pinkham refers to that don't pay. I believe he does not say farming won't pay—but we will see. I am going to know, and I believe some of my neighbors are thinking about it for the first time, too.

We are about forming a farmers' club in this town, but it is rather dull work; the most of the farmers either think they know enough, or they don't care; there is not much of a revival yet, but we have some hopes of one. I will add, by way of general information, that I believe this to be poorest section for farming in the State. It is located about twenty-one miles west of Connecticut river. Springfield, our nearest city, is about thirty miles, and Northampton, the nearest town of any importance, is twenty miles distant; the nearest railroad station is sixteen miles.

GEEEN MOUNTAIN BOY.

Cummington, Mass., Dec., 1859.

PRICES OF FARMS AND STOCK IN KENTUCKY.—We copy a few items of recent sales. A farm three miles from Shelbyville, of 234 acres, sold for $74 40 per acre; an unimproved farm of 108 acres in the same county, for $50 per acre; a farm one mile from Mt. Sterling of 330 acres at $93 15 per acre; another of 120 acres at $125 per acre. In Bourbon County, two-year old mules brought from $80 to $125 75. Two hundred Mexican mules bought $80 20 per head. One auctioneer sold 14 horses at an average of $134 85. In Scott, 50 mules sold for $155 each. In Madison County, 250 hogs on foot, averaging 434 pounds, were bought at $4 per 100, gross.

For the New England Farmer.

LUNAR INFLUENCE UPON THE TEMPERATURE.

MR. EDITOR:—In compliance with the request of your able and gentlemanly contributor, "N. T. T.," of Bethel, Me., in a communication in the November number of the monthly *Farmer*, p. 526, in which, in referring to myself, he says, "I wish your correspondent would give us the average of the temperature of high and low moon for a number of years past in September and October. Also, answer this question: Do we seldom have a frost till the full moon, or two or three days after in September? And do we not almost invariably have a frost at this time?" I give in answer the date of all the frosts that have occurred in September in Springfield, (in latitude 42 degrees, and elevation above the sea about 225 feet,) according to my record for the last four years; and for the convenience of the reader, put the date of new and full moon in connection. I also give the "average temperature of high and low moon" in September and October, for the same length of time.

I will first, however, correct a mistake by which "N. T. T." was led to say—"His observations, seventy-four in number, on the mean temperature of high and low moon giving almost three degrees colder in high than low moon, is as wide a difference as I should expect," &c. Instead of saying .29° (twenty-nine one-hundredths of a degree) as I intended, I was made by the types to say 2.9° (two degrees and nine-tenths,) varying the statement quite essentially; but the figures in the table were correctly given, and consequently contradicted the error. I was also, by a similar accident, made to say "I find the average of the observations to be 22° (twenty-two degrees) lower when the moon was high," &c., instead of .22° (twenty-two one-hundredths of a degree,) as I intended—simply by the misplacement, in one instance, and omission in the other, of the decimal point.

The dates of all the frosts that have occurred in September in the last four years, their extent in regard to severity, and the minimum temperature of the day on which they occurred, and the date of new and full moon in the same month, for the same length of time, are given, as follows:

Date.	Extent.	Min. Memp.	New Moon.	Full Moon.
1856, Sept. 25	....very light.....	38°	....23th.....	....14th.
1857, " 8	.... " "	38°		
" " 19	.... " "	39°	....18th.....	....4th.
" " 30	....ice formed.....	30°		
1858, " 23	.... " "	30°		
" " 25	....heavy white frost..	32°		
" " 26	.... " " " ..	32°		
" " 27	.... " " " ..	34°	....7th.....	....22d.
" " 28	....light.....	37°		
" " 29	....ice formed.....	28°		
1859, " 7	....very light.....	39°		
" " 8	....light.....	37°		
" " 9	....very light.....	40°	....26th.....	....12th.
" " 15	....severe.....	34°		
" " 16	.... "	34°		

In the above statement your correspondent may be hardly able to trace a semblance of connection between the occurrence of frosts and full moon, but with the limited period of observations I am able to give, I am still slow to adopt the idea of a greater tendency to frost, at or near full moon than at other times. It would be more interesting and satisfactory to have more extended data from which to judge.

The following table gives an average of the mean temperature of three days at each "high and low moon" in September and October for the last four years, according to your correspondent's request:

Years.	*High Moon.*	*Low Moon.*
1856	55.94°	62.04°
1857	55.16°	47.17°
1858	51.19°	53.39°
1859	51.50°	49.95°
Mean	53.67°	53.14°

It will be seen from the statement above that the mean temperature is fifty-three one-hundredths of a degree higher at high moon than low—against the opinion advanced by your respected correspondent, "N. T. T.;" yet I would not have any one conclude that this brief number of observations settles the matter either for or against the theory. I have given these figures at the gentlemanly solicitations of "N. T. T.," who is, however, personally unknown to me; but I would say that my suspicions in the matter—that the influence of the moon upon atmospheric temperature is so slight that no connection can be traced between it and the occurrence of frosts, either in spring or autumn, or at any season of the year—have been rather strengthened than weakened.

In another place in his communication your correspondent remarks, "I wish he would make his average for the five successive summer months for a series of years, commencing with May, and let me have the result." Here it is; and not knowing which would be preferred, high and low moon, or new and full moon, I give both, for reasons given in my former article, as follows:

Years.	*High.*	*Low.*	*New.*	*Full.*
1857	60.01°	65.42°	63.89°	63.91°
1858	63.31°	62.73°	66.55°	60.71°
1859	65.09°	61.91°	60.65°	65.34°
Mean	62.83°	63.35°	63.67°	62.92°

My preconceived opinion, I must confess, was against this theory, but as I commenced my research merely for the sake of truth, let it favor which side it might, I will now review the statements I have faithfully deduced. In the observations on high and low moon for three years, given in my former communication on this subject, (p. 494 of monthly *Farmer*,) the result was .22° in favor of the theory; and the result of observations on new and full moon, given in the same article, was also .29° in favor of it; the table of frosts in this article, may be construed to favor it, or conflict with it, while the result of observations on this subject in September and October, for four years, gives .53° against it; and the result of observations on high and low moon for the five warm months for three years, also gives .52° against it, and the same on new and full moon, for the same length of time, .75° against it.

I am not yet prepared to hazard any settled conclusion on this subject that would conflict with general public opinion; for I find that the opinion advanced by your correspondent is also more or less prevalent in this region. Yet, from the record I have studied, I see no particular evidence in its favor. I can but hope, however, that some one, who has the means to do so, will continue the investigation and, if convenient, report.

The reason why I have given observations on new and full moon, and also on high and low moon, is, that they do not often occur in conjunction, or at the same time, and that public opinion upon new and full moon, in this connection, regards it synonomous with high and low moon, whereas the contrary obtains. It is evident that the moon must exert her greatest influence upon our atmosphere at the time she passes nearest the zenith, unless it can be proved that heat is reflected from her surface as well as light; which, if it be the case, would conflict with the popular notion of its being colder at full moon. J. A. A.

Springfield, Mass., Nov. 25, 1859.

For the New England Farmer.

LOOSE BARK ON APPLE TREES.

Mr. Editor:—In a late number of the *Farmer* your correspondent informs us that the bark on the south side of his apple trees became black, and ultimately was disengaged from the body of the tree. He asks for the cause and remedy. The first cause, perhaps, is in consequence of the high state of cultivation of his lands, which renders the trees very thrifty, and consequently more tender. Then, after a tight and severe frost, the weather becomes very warm, which, in his case, starts the sap on the south side of his trees, then a sudden change of the weather from warm to severe cold and frost chills the sap, and consequently disengages the bark from the trees, and produces the result complained of.

In 1830, in January, the weather became very warm, the frost all came out of the ground, and also out of the trees. The wind suddenly changed to the north, and the frost became very sudden and severe, the result of which was, the loss of many, *very* many apple trees in the same manner as represented by your correspondent. The most thrifty trees suffered the most.

Yours, Oliver M. Whipple.

Lowell, Dec., 1859.

The Beurre Bosc Pear.—The original of the beautiful illustration of this pear, which we gave last week, we forgot to mention, was furnished by the Hon. Marshall P. Wilder—being one of a crop produced in his orchard at Dorchester. Our thanks are due him for this and other similar favors.

Guano.—According to Official Returns published in the *Mark Lane Express*, there were imported into the British "United Kingdom," in the nine months ending September 30, 1859, 64,984 tons of guano; during the corresponding period of the year 1858, there were imported 269,878 tons. More than four times as much last year as this year.

For the New England Farmer.

DISEASED APPLE TREES---SELF-ACTING WELLS.

MR. EDITOR:—Having been in the situation represented by your correspondent of Still River respecting "diseased apple trees," I have sympathy with him, and will tell him that I planted an orchard of trees from western New York in the spring of '55, and in the spring of '56 found them in the condition represented by him. I lost some of them, but could have saved nearly all, had I been in possession of the information that I have since acquired. Experience I had but little, but believing it to be the effect of exposure to cold, being in an exposed position, I set about for repairs. My first step was to make a batch of grafting wax, which may be made as follows: One pound tallow, two pounds bees-wax, four pounds rosin; all pure and clean articles: put the whole into an iron pot and heat them till they come to a foam; then turn the heated wax into a tub of water; then with greasy hands work thoroughly. With a sharp knife cut off the dead bark, and apply the wax, and put about the roots of the trees a bushel or more of chip manure, and when you find a tree-top cannot be saved, cut it off near the ground where the wood is green; cover the stub with wax, and protect the first sprout that comes of a thrifty appearance, and cut off all others. Cut off all dead branches, and wax over the end of the limb next the tree. In this way I saved eighty of an hundred, many of them in the condition spoken of by "Still River." The manure should be applied immediately, and the waxing in a warm day; in the spring I apply to each tree a small handful of unleached wood ashes. The ground should be put to a hoed crop for four or five years at least. Care and anxious attention by him, will save his trees. O. W. D.

Goshen, Vt., 1859.

REMARKS.—We have no means at hand of referring you to the Proprietor of the Self-Acting Well.

For the New England Farmer.

BUTTER IN WINTER.

In my reply to your "New Bedford correspondent," I, last week, gave some views on this subject, and promised soon to render other information. This I could not acquire until I saw the result of this morning's churning.

Here, the churning is done once a week, and from cream obtained by feeding "meadow hay" only. Better feed, sure, ought to give better cream! The milk of night and morning, during winter months, (as before said,) is thoroughly scalded immediately after milking, and straining. The past week, during sudden changes of weather, the milk after scalding and being placed away in the pans, accidentally became frozen solid. The cream, however, (partially at least,) had risen. But it was so solidly frozen, it had to be scraped off with a spoon, and in such state, was placed away, thinking it worthless. This morning, however, it was thawed out by putting the cans holding it into hot water. This was the condition of all the cream churned this day. The result was, most excellent butter in thirty minutes churning, and the "butter-milk" remaining could not be distinguished from new milk from the cow. I would also say, the cream from milk that has been scalded never has a bitter taste, as is generally the case with cream from milk not scalded. This, sure, is a gain. Let, therefore, no one object to a little "pains-taking" in the scalding of milk, as it surely saves so much labor in churning, and ofttimes saves the whole week's product of cream from being lost.

Now, Messrs. Editors, for all this rendering, can any one give me any information as to the churn advertised with you the past summer, that would produce good butter from "butter-milk" in five or ten minutes churning? As the Scripture says, "Come over and help us." OAK HILL.

Dec. 23, 1859.

EXTRACTS AND REPLIES.

CULTURE OF CRANBERRIES.

I have a cranberry bed about nine feet square, from which I picked twelve quarts of handsome berries, although the grass is as thick as the vines; the soil is wet and springy, but not boggy; I would like to know the best way to increase the size of the bed, and whether it should be flowed or not; if flowed, at what time, and how long?

GEORGE EDDY.

North Providence, R. I., 1859.

REMARKS.—Increase your cranberry patch by covering a square rod by the side of the old bed with gravel, so as to cover all the grass, and in April next set it with vines within six or eight inches of each other. The vines may be taken from the meadow with a little tuft attached to them. Pull out all the grass when you set them, and never allow that, or weeds, to grow among them afterwards. Put up a board, edgewise, around the bed so as to rise three or four inches above it, and then, outside of the board dig a little trench a foot wide and four inches deep, to prevent the grass growing into the bed. Give us the result.

We do not think flowage necessary, unless to kill worms or prevent damage by frost.

VEGETABLE MOULD FOR MEADOW LAND.

Will it answer to draw a rich mould on to a piece of old meadow, broke up last fall, without making a compost of it? The mould appears to be decayed vegetable deposit, out of which I drained the water last fall. A. D. HOLT.

Salisbury, 1859.

REMARKS.—Peat, or muck meadow land would not be materially benefited by the application of vegetable mould. Such land abounds in vegetable matter, and needs sand in some form. Would it not be better to apply the mould to the high lands and a dressing of sand to the meadow?

PRUNING PINES.

I have about thirty acres covered with a thick growth of pines, from twelve to fifteen years old.

If any of your readers have had experience in thinning out and trimming up such trees, I wish they would tell me whether it is better to trim and thin out, or to let "nature take its course."

N. B. SAFFORD.

White River Junction, Vt., 1859.

REMARKS.—This is a matter not well settled. We know of some experiments in pruning that have resulted favorably. Shall be glad to hear from others in relation to the inquiry.

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CRANBERRY CULTURE.

I learn from the *Ploughman* that the experienced editor had four rows of plants twelve rods long, which continued to do well and improve for three years, so long as he kept the grass and weeds away from the plants; but the fourth year, when no attention was given to them, they failed to do well. I should like to inquire of the veteran enthusiast, if he knows any other variety of plant that would not fail under such circumstances?

I have known the cranberry cultivated five years successively on the same ground, yielding a bountiful crop of superior berries each year, always having been watched with vigilance that no extraneous substance should check its growth. I cannot think that any valid argument can be brought against the culture and growth of the cranberry, from the facts stated in the *Ploughman*, any more than there could from the failure of a field of corn that was neglected to be hoed. Crops are ever the reward of vigilant attention; and no crops the contrary.

December, 1859.

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WINTER BUTTER.

In answer to friend Leonard's inquiry how to make butter in cold weather, I will tell him how I practice. I heat my milk by putting it into a strainer pail, and set it into a kettle of hot water; heat until nearly scalding hot; set it in a cupboard with a cloth hung in front, in a room where there is a fire kept through the day; it will keep from two to three days. I am careful to skim it before it sours; keep the cream in the same room, and as near summer heat as I can. I never heat the cream before churning, but scald the churn before putting the cream into it. I add a little carrot juice to the cream when I churn it. It will puzzle the best judges to tell the butter that I am making this winter from that made in September.

Dec. 22, 1859. BUTTER MAKER.

—

STOVES—PEAT—IRON-RUST.

Can a cast iron box be made with front and bottom grating to put into a wood-stove, so as to burn coal in it?

What is the comparative value of the best peat and wood or coal?

Is there some kind of cement or solder, that can be put on the inside of a tin wash-boiler, to prevent the clothes from iron-rusting?

Georgetown, Mass., 1860. N.

REMARKS.—You can get a stove with a lining calculated to burn either wood or coal; or if you have a stove the top to which can be taken off to give room to put in the grate, you can fit it up yourself. We have not the information at hand in relation to value of different fuels, but a ton of hard coal is considered equal to two cords of the best wood.

—

BUTTER AND CHRYSANTHEMUMS.

In reply to E. Leonard's inquiry about "butter-making in winter," I will give my own method, which may, perhaps, be of some use to him. I scald the milk in a kettle used for the purpose, —being very careful that it does not burn,—then place it in a cool closet. In three or four days, skim. Scald the churn before putting in the cream. The butter will come in from ten minutes to an hour, at longest.

Will some one please inform us through the *Farmer* how to bring chrysanthemums to the greatest perfection. B.

Somerset, Dec. 16, 1859.

—

COST OF KEEPING OXEN PER WEEK.

Will you or some of your readers please inform me what would be a fair price a week for keeping a yoke of oxen through the winter, on good hay—the oxen not to be worked—the keeper to have the manure. Ought they to have meal, to be in good working order in the spring—if so, how much meal a day—and price a week on hay and meal. A READER.

P. S.—If the oxen are worked—but not by the keeper—what feed should they have, and what is a fair price for keeping them a week.

Billerica, Mass., Dec., 1859.

REMARKS.—We leave a reply for some of our readers better informed. Of course, the age and size of the oxen would have much to do with it. As a general rule, we suppose that cattle eat about three per cent. of their live weight, so that an ox weighing 1500 pounds would require 45 pounds of hay per day.

—

SHEEP.

Sheep highly fed with meal or other good provender, about the time the buck is with them in the fall, will almost invariably have two lambs apiece. So says one of the greatest sheep-breeders. The lambs, also, may nearly all be raised by proper attention to the mothers. The great mistake in regard to sheep is in not keeping them well enough. If you wish them to be prolific or profitable, give them plenty of the best hay through the winter, meal daily, and for shelter, a warm barn-cellar wherein is an open tank of pure water. P.

Colebrook, N. H., Dec. 5, 1859.

THE TURNIP CROP IN ENGLAND.—We find considerable complaint in our English papers of the failure, this year and last, of this important root. Caterpillars that attacked the blade, grubs that mined into the root, blight that checked its growth, and finally, a frost that occurred on the 22d of October, are among the casualties enumerated, this season. At some of the late meetings of farmers, the opinion has been freely expressed, that some substitute must be found for the Swedes.

SETTING AN APPLE ORCHARD.

The setting of an orchard by any one, young or old, is a work of too much importance to be done indifferently, or without that careful consideration which any work demands that is to remain for fifty or a hundred years, and that is to stand both as a work of utility and beauty. Few persons who plant an orchard can reasonably expect that all its profits will accrue to themselves; for if it is well done, it should last seventy-five years, at least, and if it is poorly done, there will be no profit from it. They work, therefore, for another generation, and that work ought to be done so as to elevate, beautify and make profitable,—that in the end, the earth shall be so fruitful, and all material things so blending and co-operating with it, that the mind itself shall be drawn into harmony, and this fair land of ours truly become the garden of of the Lord.

It is with this view of the matter that we shall reply to the inquiries of our respected correspondent in the following letter:

DEAR SIR:—I wish to put out an orchard the following spring on the soil here described; a pine surface soil from six to fifteen inches in depth, underneath which is a subsoil of gray and red clay, termed in this section, "hemlock soil," compact, and very retentive of water. I wish you, through your columns, to give advice in regard to setting the trees, and answer the following questions.

1. How far apart should the trees be put?
2. What method is best in making the root bed?
3. Would you fill in the bottom with small stones?

An early answer through your columns will oblige greatly an old reader and subscriber.

Colchester, Vt., Jan., 1860. A. A.

As the writer is evidently going to work considerately in his enterprise, and desires to do all things well, we will allude to one or two things before making a direct reply to his first question.

The thrift, continued prosperity and *profit* of an orchard, like other crops, will depend, mainly, we think, upon the condition of the soil upon which it stands. If the soil is "compact, and very retentive of water," little profit will be likely to accrue from it, whether devoted to an orchard or any other crop. The first step should be to drain it, and if the labor to do this is found too heavy and expensive, commence upon one edge of the piece to be appropriated to trees, and drain the water off to the depth of three or four feet, if it is practicable. After this, plow a foot deep, or two if you can, manure highly, and work it in intimately with the soil. When this has been done, the field is ready for the reception of the trees. Now comes the question as to the distance apart which they should be set. This depends much upon circumstances. If one is a young man, has a large farm and plenty of team to do a good deal of plowing, with manure to cover many acres, *forty* feet apart is not too much for the trees. Under the most favorable circumstances, the branches of these trees would never meet so as to obstruct their growth, or in any manner to interfere with each other. If the land under them is kept properly cultivated and manured, they would probably cover its whole surface, and the results would be all that ought to be expected from a good orchard. If, on the other hand, it is desired to plant an orchard on hilly and rocky land—where apple trees often thrive the best—and where plowing and the application of manure would be quite expensive, we should certainly advise to occupy a less breadth of soil, and place the trees *thirty* feet apart, or even *thirty* feet one way and only *twenty-five* the other, with the view of shortening them in a little after the lapse of twenty years, if their branches should meet, rather than encounter a soil so expensive to work. In the case, also, where a person has a decided taste for the cultivation of apple trees, and wishes to occupy a considerable portion of his time in that particular item of farm industry—and where he does not keep a strong team of oxen or horses, and is limited in his manurial agents,—but still wanting a considerable number of trees, we should advise to set them within *thirty* feet of each other.

The second question of our correspondent,—"*What method is best in making the root bed?*" has been pretty nearly answered in what we have already said about the preparation of the land. But, briefly, we would suggest to lay out the field at whatever distance is thought best, then dig the holes five or six feet in diameter and eighteen inches to two feet deep, throwing the black soil on one side, and the yellow or subsoil on the other. When this is done, return the black soil to the bottom of the hole with any old, well-decomposed manure, and the bed for the tree is ready. The centre of this hole should be the exact line in both directions, and while one person holds the tree steadily in its proper position, another should carefully single out all the small as well as the leading roots, making them radiate in every direction, and cover them with fine and rich black earth. The space under the base of the tree should also be filled with soil, so that no roots be left to gather mould and then decay. The tree should be set at the same depth in which it grew, and some excellent orchardists say with the same side to the sun. The black earth may now all be returned to the hole, and then the subsoil, which completes the work. A good tree set in this careful manner will make more growth in six years, than one of the same quality indifferently set will in ten years, and the probability is that in the course of fifteen years it will many times repay the cost of the extra care it had received.

In reply to the third inquiry, we would say, that if the surface abounds with small stones, and the

land is not well drained, it certainly would afford some scope and protection for the roots if underlaid with a liberal bed of stones; they would tend to a more rapid drainage immediately about the tree, and if the spaces between them were filled with loam, the roots would travel and find supplies there. We cannot see that they would be injurious under any circumstances.

THE WINTERS.

BY FRANCES BROWNE.

We did not fear them once—the dull gray mornings
No cheerless burden on our spirits laid;
The long night-watches did not bring us warnings
That we were tenants of a house decayed;
The early snows like dreams to us descended;
The frost did fairy-work on pane and bough;
Beauty, and power, and wonder have not ended—
How is it that we fear the winters now?

Their house-fires fall as bright on hearth and chambers;
Their northern starlight shines as coldly clear;
The woods still keep their holly for December;
The world a welcome yet for the new year,
And far away in old remembered places
The snow-drop rises and the robin sings;
The sun and moon look out with loving faces—
Why have our days forgot such goodly things?

Is it now the north wind finds us shaken
By tempests fiercer than its bitter blast,
Which fair beliefs and friendships, too, have taken
Away like summer foliage as they passed,
And made life leafless in its pleasant valleys,
Waning the light of promise from our day,
Fell mists meet even in the inward palace—
A dimness not like theirs to pass away?

It was not thus when dreams of love and laurels
Gave sunshine to the winters of our youth,
Before its hopes had fallen in fortune's quarrels,
Or Time had bowed them with its heavy truth—
Ere yet the twilights found us strange and lonely,
With shadows coming when the fire burns low,
To tell of distant graves and losses only—
The past that cannot change and will not go.

Alas! dear friends, the winter is within us,
Hard is the ice that grows about the heart;
For petty cares and vain regrets have won us
From life's true heritage and better part.
Seasons and skies rejoice, yea, worship rather;
But nations toil and tremble even as we,
Hoping for harvests they will never gather,
Fearing the winter which they may not see.

PLACE FOR THE ADDRESS.—The *California Farmer*, in commenting on the late State Fair, makes the following remarks on this subject:

"A very great error, we think, was made in having the address delivered in the Hall of Exhibition. It is impossible to keep an audience of such magnitude still. All do not come to *hear* speaking; they come to *see* the fair. They pay their money to see the exhibition; and it is not possible to keep such an audience quiet. Far better to have speaking in another place. Then, all who wish to *hear* can go; and those who wish to *see* can enjoy what they pay for."

PRIDE is a wild beast, which requires costly food—the happiness of its keeper and all around him.

ROUGH DOCTORS.

While on this subject, may I be allowed to advert to the sad, harsh manner in which some medical men address their patients, children especially. They are too apt to speak to the invalids roughly—too often frightening them. Children are laid hold of in any thing but a gentle manner; their pulses are felt as if by force; their mouths forcibly opened for the purpose of examining the tongue, till the child is so alarmed, that it is almost impossible to judge of the real state of the case, owing to the excitement and crying. Now, surely, this is very wrong. Instead of having, with much difficulty, to coax the little one to go to the doctor's, or to allow him to see it at home, it is only right for the medical man to employ all his soothing powers to induce the child to place confidence in him; or, at any rate, he should, by his gentle manner, try to abate fear. It has been, and is at the present day, lamentably common for physicians and surgeons to adopt what is called "the Abernethy manner." Never was there a worse or more injudicious plan. I am not, for a moment, wishing to throw the least slight on so deservedly great and so skilful a surgeon as the late Mr. Abernethy; but I wish to condemn, and that most strongly, the rough system adopted by so many practitioners, as if rough, coarse behavior or manners constituted ability.—*My Note-Book; or the Sayings and Doings of a London Physician.*

For the New England Farmer.

UNDERDRAINING---THE RESULT.

MR. EDITOR:—In the fall of 1858, I underdrained about two acres of cold, stony upland, at a cost of about $30 per acre. A part of the drains were made of stone, which were plenty upon the ground, and a part of drain tile manufactured in our town. The crop of 1858 consisted of two small loads of brakes, with a little grass, and would hardly pay for cutting and taxes. I do not mention interest, as land that pays nothing is worth nothing.

This spring, I broke it, manured lightly, and planted to potatoes, corn and beans. The crops did well, and at harvest were worth, in our market, about $100, which paid the $60 invested for draining, and $40 for labor. The land is now worth, at least, $50 per acre. I close by saying that my experience in farming does not coincide with that of J. T. P.'s. J. R. W.

Springfield, Vt., Dec. 12, 1859.

REMARKS.—This short story will probably lead to the draining of scores of acres.

ARTESIAN WELLS.—Many of these wells have been made in California, to procure water for irrigation. By an article in the *California Farmer*, it appears that these wells are charged with producing very serious injury by causing the drying up of mountain streams and other bodies of water. The editor says, after mentioning by name quite a number of streams, ponds and lakes that have disappeared, "there are scores of mountain streams and lagoons that in the last few years have dried up, and with them the loss of herbage and the pasturage of tens of thousands of stock."

Residence of C. Chamberlain, Esq., Foxcroft, Me.

A PLEASANT AND CONVENIENT HOMESTEAD.

There are few things that more truly indicate the degree of civilization and refinement that a people have attained than the style and arrangement of the buildings in which they live. These stand as memorials of the age, and mark its character as distinctly as does its literature, or any department of the arts.

When we see a house constructed in true architectural taste, all its parts harmoniously combining with each other, and the grounds about it so laid out as to blend with and heighten the effect of the whole, we expect to find within its doors a family of intelligent persons, with cultivated minds in most things, possessing attractive manners and adorning the society in which they move, as their house and lands adorn the natural world about them.

The tendency of this condition of things has an important influence upon the state of the mind, other things being equal. It soothes it when agitated—tranquillizes grief—furnishes pleasant objects for contemplation in sickness or sorrow, and fills the mind with a class of delightful associations that give it color and tone through life.

Is it not important, then, that when we build, it should be done in accordance with true rules, and so as to avail ourselves of all the advantages of location, style, health, convenience of arrangement, and to secure such an aspect about us as shall always suggest pleasant and kindly emotions?

It is not always more costly to get these things, than it is to forego them. It may be even cheaper. The man who *knows how* to construct a building upon true rules, will do it with less material than he who guesses at it, and at the same time give you a house furnishing the conveniences you require.

Another person might have expended $500 more upon the buildings which are illustrated above, without obtaining their accommodations. It is best, therefore, for every one, before building, to advise with others in regard to location, arrangement of the interior, construction, and laying out of the grounds; and no house should be erected in the country without regard to *laying out the grounds* around it. A mere cabin, remote from all other buildings, with its bit of lawn in front, a little rude trellis-work here and there, with its creeping plants over the door, or their blossoms looking in at the windows and exhaling their fragrance there, is a thousand times more attractive than many a costly and presuming mansion. And this is attainable by all who build in the country.

The engraving which we present to-day represents the farm buildings of CALVIN CHAMBERLAIN, Esq., of Foxcroft, Maine, and it illustrates far better than we can by words, the idea which we should be glad to impress upon the mind of the reader.

Mere shelter is *not* all we want; a cultivated mind will never be contented with that alone—it yearns for something to *please*, as well as protect, and even in poverty and privation, will surround itself with such objects as will excite pleasant and healthful thoughts.

We intended to say something of the arrangement of these buildings, of the octagon barn, and the grounds about them, but our preface has exhausted all the space we can spare, and we must leave the reader to examine for himself, and postpone giving another train of thought, which this cut had excited, until another opportunity.

TO MANAGE A REFRACTORY HORSE.

MR. EDITOR:—In the *Farmer* of the 15th inst. appeared an item, copied from the *Cotton Planter*, at which I was not a little surprised. Knowing the uniform humane proclivities of that journal, (the *Farmer*,) I wondered that it should seem to give countenance to such a barbarous experiment, as tying a cord—a plow-line was suggested—to the nether jaw of a balky or contrary horse or mule, and going forward of the poor brute with the other end, and pulling till it would come forward with its load. Now such a spectacle as that might, perhaps, be witnessed with approval, where all labor is coerced; but shame should and would mantle the cheek of *your* readers, most of them, certainly, at the thought of such a cruel operation. The time was when, among us, it was customary to whip all refractory brutes into submission, and many a valuable horse has been rendered worthless by such barbarity. But, thanks to the intelligence of the age, such practices, in New England, are being done away with, and more gentle and reasonable means substituted for correcting the follies to which brutes, as well as men, are liable, especially through the influence of early mismanagement.

It has been pretty well demonstrated, that a horse, as well as a man, is the creature of education, and when the *Cotton Planter* comes to learn this fact, and act upon this principle, it will have attained a higher civilization than that which admits of drawing horses or mules by the under jaw, to extort work from them.

Having said thus much on the article alluded to, let me suggest a better way to overcome the notion—for it is only that—of refractory beasts. The law of kindness has never yet failed to produce a salutary effect, in a greater or less degree, when properly applied; nor will it, in its application to a balky horse. It may require an immense patience and considerable time, with many efforts, to make a thoroughly contrary horse lift upon his collar, at a heavy load, in all places, but nevertheless, it may be done, and perhaps somewhat after this wise: Put him into the hands of some man fit to manage a horse, and who can control his temper under any circumstances, and with him let the horse become thoroughly acquainted,

(brutes, as well as men, make acquaintances,) after which, let him be used by such master only, hitching him to such loads as he can easily draw; allow him any time he may require to get ready to start, without much urging or any whipping, or loud talk. Smooth out his foretop and mane, caress his head and neck, and blow gently on his nostrils, and talk soothingly to him, and ere long his countenance and nerves will be seen to relax, and his eye to assume a mild and subdued look, when the driver may take him by the bit and ask him to go forward, and he will do it; or if he still refuses, allow him more time, and continue the above process till success comes, as it surely will come, without fail. Afterward, when the present load is drawn without reluctance, add more and more, and continue the same process, and eventually you may have as tame a horse as you can ask. Try it.

And are not such means more congenial to a mind of sensibility than that prescribed in the article referred to? Cruelty to animals, is always attended with pecuniary loss, and a brutalizing and debasing effect upon him who inflicts it. Better that the ox be sent to the shambles, and the horse sold to the jockey at any price, than that a man's sensibilities be blunted, his temper excited and his better nature outraged, in attempts to subdue them. E. I.

Springfield, Vt., 1860.

BARN CELLARS.

This subject was recently discussed by the Farmers' Club of West Cornwall, Ct. The *Homestead* reports that—

"All the club were agreed upon the value of such a place for depositing manure, where it may be composted and ferment, even during extreme weather.

It was the universal opinion of all who had tried it, that hay kept perfectly well in a deep bay, going below the surface, if it was well drained so that water would not rise; it should be well cured, and then it will preserve its color and fragrance better than upon open mows or scaffolds.

There was a division of opinion upon the point whether horses and cattle did as well, kept in underground apartments. The truth appears to be, that with proper light, ventilation, and cleanliness, there is no better stabling; but if the animals wallow in filth, or a reeking dung-heap occupies half the stable, and ventilation is only secured by doors sometimes open and producing currents of air, the natural consequence will be coughs and colds, and other diseases resulting from impure air and sudden changes of temperature."

DR. LORING'S ADDRESS.—We received, some time since, a copy of the "Address of Dr. George B. Loring, before the Barnstable Agricultural Society, Oct. 6th, 1859," printed in the Salem *Advocate*. The topic discussed by Mr. Loring is Agricultural Education—Elevated Labor. His arguments are based not on the mere expediency of desirableness of such education, but upon its imperative necessity for the maintenance of our social and civil organizations. "That equality of citizenship which makes us a free people," says he, "requires this elevated condition of labor, without which we should be free no longer." We hope to see this address in a more convenient and, to our poor eyes, more readable form.

For the New England Farmer.

THE WEATHER OF THE AUTUMN MONTHS, 1859.

The first half of *September* was very dry, less than half an inch of rain falling during the first sixteen days; and the springs and streams, there being a scanty supply of rain during the latter part of August, became unusually low. Yet, strong indications of rain were not wanting, for several times storms lingered and threatened heavily for several days, but finally deposited only a trifling amount of moisture. A heavy, cold, north-east rain storm, however, set in at daylight on the 17th, and during the twelve hours of its continuance, deposited 1.94 inches of water on a level. A heavy, very cold north-east storm also prevailed during the 21st, 22d and 23d, in which two inches of water fell; and though there was but little rain during the remainder of the month, there was the usual supply of water for the month—4.24 inches.

The month, with the exception of a very few days, was remarkably cool throughout, and during the first sixteen days, the sunrise temperature was more frequently below 45° than above that point. Light frosts occurred on the 7th, 8th, and 9th, and severe frosts on the 15th and 16th. No frosts occurred during the remainder of the month, and generally the last half of the month was somewhat warmer than the first half. There were three very warm days about the 12th, but on the whole corn matured slowly; but very little had been cut previous to the 10th, and only a fair commencement had been made when the heavy frosts occurred on the 15th and 16th, greatly injuring the fodder, and almost spoiling the crop on late pieces. Generally the corn had not become sufficiently ripened to prevent serious damage; yet, at husking time the farmers found a larger proportion of sound corn than they had anticipated. On the 18th, from a point in this vicinity, nearly one hundred acres of corn could be seen, of which but a very small per cent. had been cut; the remainder was standing, dead and whitened from the effects of the frosts of the 15th and 16th. A large part of the corn, hereabouts, was in the milk at the time of the frosts; but little was glazed, and only here and there a piece matured enough to harvest.

The mean temperature of the month was 57.15°; of the first seventeen days, 56.44°; of the last thirteen, 58.69°, the last part of the month being two and a quarter degrees warmer than the first part. The mean temperature of September, 1859, varied but little from that of September, 1858, but while the whole month was very cool the present year, in 1858 the fore part of the month was extremely warm—no frosts occurring till the 23d; and the remainder of the month was remarkably cold, ice forming several times, but on the whole, very favorable to vegetation, and there was no loss from frosts.

The highest temperature in September was 75°,

on the 12th; the lowest was 34°, on the 15th and 16th. The extremes of September, 1858, were 82° and 28°. The warmest day was the 11th, having a mean temperature of 70.33°; the coldest was the 14th, with a mean temperature of 47°, when the weather was severely cold, with a heavy gale of north-west wind, rain squalls at 9, A. M., and snow squalls occurred in some of the towns of Western Massachusetts.

There were a few fine days during the first part of *October*, but generally the month was cold, quite cloudy, and dry, and unpleasant winds prevailed during the greater part of the time. North-west wind was very predominant, forming a characteristic of the month, there being fifteen days of wind from that quarter, generally strong, and often a heavy gale. The north-west wind was uninterrupted during the last *seven* days of the month, and in the last thirteen days there were eleven of north-west wind. Dark, heavy cumulose clouds generally attended, presenting a gloomy, November aspect; and on the whole the month was quite November-like, being much rougher than October usually is, and far from what October is expected to be.

The scarcity of rain was a marked feature in the weather, only two inches of rain falling in the whole month, and only eighteen one-hundredths of an inch fell after the 8th, or during the last *twenty-three* days. More or less rain, however, fell on six days, the greatest fall at one time being one inch and forty-four one-hundredths, on the 8th. There was heavy thunder and sharp lightning during the afternoon and evening of the 8th, and occurring in the midst of a long, cold, north-east rain storm, with the thermometer at 45° to 42°, was quite a novelty. It was the only thunder storm of the month.

The mean temperature of October was 45.63°, being 3.66° colder than October, 1858, and 3.1° colder than October 1857. The warmest day was the 4th, with a mean temperature of 63.33°; the coldest was the 26th, having a mean temperature of 31.83°. The highest temperature of the month was 75°, at three, P. M., of the 4th; the lowest was 23°, at sunrise on the 26th. There were flying snow-flakes on the 31st.

The first ten days of *November* were quite fine and warm, even Indian summer-like, but on the 12th a heavy storm set in, commencing with snow and sleet during the morning of the 12th, but the temperature rising, and the wind becoming strong from the south-west, the air was warm and humid, with mist, till the morning of the 13th, when powerful rain set in, with thunder and lightning occasionally. The rain continued through the day, with sleet again in the evening, the wind having changed to north-west at one P. M., and between noon and sunset the temperature fell from 62° to 35°. During the storm, 1.13 inches of rain fell, the first that had fallen for twenty days, or since the 22d of October; and during the *thirty-three* days between the 8th of October and the 12th of November, less than two-tenths of an inch of water fell. In consequence of this long continued drought, and from a scarcity of rain during several months previous, the streams and springs had become lower than at any time previous during the year, the Connecticut standing within a few inches of low water mark; and mills and factories were incommoded by the lowness of the streams.

Many fine days occurred during the remainder of the month; and generally the weather was quite mild, even rather warmer than usual, and the whole month was much more agreeable than the month of October. On the 22d, there was a storm of rain, preceded by an inch of snow; and during the storm, eighty-eight one-hundredths of an inch of rain fell. The ground was also white with snow on the morning of the 26th, but the storm having changed to rain, it soon disappeared. Not more than two inches of snow fell, in this part of the Connecticut Valley, in the whole month, but some of the hill towns of western Hampden and Hampshire counties continued white with snow from the 22d till the end of the month. The whole amount of water that fell during the month, was two and three-fourths inches.

The mean temperature of November, was 41.3°, being only 4.33° colder than October, and 8.35° warmer than November, 1858. The warmest day was the 18th, the mean temperature of the day being 47.17°; the coldest day was the 25th, having a mean temperature of 30.33°, being but 1.5° warmer than the coldest day of October. The highest temperature was 66°, at 2½, P. M., on the 5th; and the lowest temperature was 23°, on the 21st, being the same as the minimum temperature of October.

In short, the season as a whole was exceedingly unpleasant, though the fine weather of November somewhat redeemed its general character. The unseasonably cold weather of the first half of September came near accomplishing what had been often threatened in the summer months—the destruction of crops by frost; and the corn crop did not escape material injury; and the rough, windy weather of the following months rendered the gathering of the fall products very disagreeable.

The mean temperature of the three autumn months was 48.03°, and taken together, were 0.57° warmer than the autumn months of 1858. The mean temperature of the same at sunrise was 40.68°; at noon, 53.25°; at sunset, 49.75°; and the mean maximum for the same time was 55.42°. (Ordinarily the maximum, or highest temperature of the day, occurs at not far from three, P. M.) The mean temperature of September, at sunrise, was 48.43°; at noon, 63.57°; at sunset, 57.87°; while the mean maximum of the month was 64.93°. Of October, the mean temperature was, at sunrise, 38.35°; at noon, 51.09°; and at sunset, 47.61°; mean maximum, 53.39°. Of November, at sunrise, 35.27°; at noon, 45·1°, and at sunset, 42.77°; mean maximum, 47.83°.

There was more or less rain on twenty-three days, the whole amount equalling 6.19 inches, or two-tenths of an inch less than fell in the month of June. Rain fell on eleven days in September, on six in October, and on the same number of days in November. The first snow-flakes were observed here on the 31st of October, and the ground was barely whitened with snow on the 12th, 22d and 26th of November.

During the three fall months, (ninety-one days,) there were twenty-two clear days, and sixteen cloudy, and of the remaining days clouds were rather predominant in twenty-three, and thirty were tolerably clear. In September there were seven clear days, four cloudy, eleven tolerably clear, and eight others in which the clouds predominated. In October, eight clear days, six

cloudy, seven much so, and ten tolerably clear. In November, seven clear days, six cloudy, nine tolerably clear, and eight in which clouds were very prevalent.

The *wind* was from the *north-west* thirty-six days, or forty per cent. of the time; from the south-west, twenty-five days; from the north-east, twelve; from the south, eight; from the north, two and a half; from the south-east, one and a half; and there were six days in which the air was calm, or without a regular current. Total number of days of wind from a northerly quarter, fifty and one-half; same from a southerly quarter, forty and one-half, distributed as follows: In September, 11 from the north-west, 6 from the north-east, 9 from the south-west, 1 from the south, and 3 of calm; in October, 15 from the north-west, 3 from the north-east, 1 from the north, 10 from the south-west, 1 from the south, and 1 of calm; in November, 10 from the north-west, 3 from the north-east, 1½ from the north, 6 from the south, 6 from the south-west, 1½ of south-east, and 2 of calm.

Among the miscellaneous phenomena, I observed eight haloes, five of which were solar and three lunar.

I also observed *eleven* auroras. Five occurred in September—on the 1st, 2d, 24th, 27th and 28th—the two first of which were very brilliant displays of polar light, and exceedingly interesting. Five exhibitions of the aurora borealis were also observed in October—on the 2d, 18th, 20th, 21st and 29th—mostly quite feeble, however, as was the one on the 14th of November, and attracted but little notice. In a period of a little more than two months, ending with October, there were *fourteen* or more auroras seen; an unusually large number to be visible in so short a space of time in this latitude. And doubtless many others occurred that were rendered invisible, either by clouds or bright moon-light. Such grand auroral displays as were witnessed on the nights of the 1st and 2d of September, and also on the 28th of August, are worthy of more than a passing notice. Their powerful electrical influence, as manifested in the working of the telegraph lines during these magnetic storms, has already been spoken of at length by the newspapers, and need not be commented on here. The whole sky was strongly illumined in every quarter during the last part of the night of the 1st, with crimson and various prismatic hues, auroral clouds appearing in various quarters, with splendid, ever-changing streamers, shooting up towards a point near the zenith. From the electrical disturbances in the working of the telegraph wires, it was evident that the same auroral storm continued during the forenoon of the following day, being rendered invisible by the shining of the sun, and probably continued through the day with varying degrees of intensity, becoming visible again on the evening of the 2d, as soon as the twilight would permit, and continued till a little past midnight. Though this display was less in intensity and vividness, and variety of colors, than that on the night preceding, it was still hardly less interesting. Soon after sunset, it appeared as a faint blaze of light a little above the northern horizon, increasing and fluctuating as the evening advanced, and before eight o'clock became an imposing spectacle. The dark segment was quite characteristic, bounded above by the bright, luminous arch, from which proceeded the brilliant streamers. At eleven o'clock, I particularly noticed *flashes* of yellow light constantly darting upward from the arch near the horizon, chiefly from the north, north-east, and a point east by north-east, leaping and flickering like tongues of fire, towards a point a little *south* of the zenith. At times there were arches of light arranged like curtains, from which the streamers darted in rapid, constant flashes, or coruscations which *seemed* to be but a few yards above the tree-tops. Certainly I never saw auroral light apparently so near the earth.

A low temperature occurred generally during these displays of polar light, frosts occurring even in August and the first part of September; and according to the popular notion, that cold weather is indicated by auroras, a cold winter may well be anticipated.

The fall migration of the birds generally occurred from one to two weeks earlier than usual. The snow-birds came down from the north about the middle of October, in company with other northern sparrows. The blue birds and robins departed during the last days of the same month. Wild geese passed over on their southward journey about the 12th of November. On the 12th, I observed *ten* flocks in about three hours, passing in a breadth of two miles, in the aggregate there must have been 700 individuals—a remarkably large number to be seen here in so short a space of time.

ERRATA.—In my remarks upon the weather of the summer months, (p. 482 and 483 of monthly *Farmer*, vol. 11,) the types caused me to say that July, 1859, was 42° colder than July, 1858, instead of 4.2° as intended. Also that the summer of 1859 was 16° warmer than the summer of 1857, instead of 0.16°. J. A. A.

Springfield, Dec. 2, 1859.

INFLUENCE OF AGRICULTURAL PAPERS.—The Rev. Mr. Choules, in an address delivered some years since, before the American Institute, said:

"He once undertook to tell, in passing through a town, what farmers took agricultural papers, from the appearance of their farms, and missed but once in thirteen times.

"I was lately in the company of a son of a bank president—a young man accomplished in his way—who inquired what neat cattle meant, and how many years it took wheat to come to maturity. I earnestly believe that agricultural papers, generally circulated in our cities, would be productive of the greatest benefit."

TEN THOUSAND DOLLARS MADE IN A YEAR FROM EIGHTEEN SWARMS OF BEES.—We have, from reliable authority, the following account of remarkable success (pecuniarily) in raising bees in this State. A gentleman in one of the valleys near the Bay, last year purchased eighteen hives of bees, for which he paid eighteen hundred dollars. From these eighteen hives he had one hundred and one swarms, and he has sold one hundred of the swarms for one hundred dollars each, thus realizing the snug sum of ten thousand dollars in one year. He still has on hand nineteen swarms, one more than he commenced with! So much for bees.—*California Farmer.*

FOWL MEADOW.

On re-publishing from our paper an article on this grass, the editor of the Wisconsin *Farmer* asked for information of its growth in that State. From a communication in reply to this request we take the following statement, made by a gentleman who found a strange weed in his strawberry patch, which he preserved out of curiosity, and which a friend while eating some of the strawberries, recognized as the Fowl Meadow grass:

A few weeks afterwards, I took the handful of seed (all there was) and sowed it on the edge of my marsh where I had burned a few heaps of willow bushes in the spring, and put nothing on the ground. The next season I did not make hay until after harvest, and found this grass mostly all rotten, as it had grown too rank, and fell or lodged down. There was nothing done to the strawberry bed that year, and the few bunches left there were down and the seed wasted, as I thought. But in 1854 the strawberries had run out, and a fine patch of this grass was cut, and the seed saved; which was sown with some clover seed in the spring of 1855 on a small piece of ground with rye near the river, and about five feet above its level. In 1856 I had a very good crop of clover, and here and there a few spears of this grass. In 1857 the clover was badly killed out by the previous severe winter, and I did not cut it until quite ripe, and it being a very wet time, did not get much, nor very good hay. In 1858 I had as heavy a crop of hay as could be wished for, as the clover and grass had both shelled and seeded it perfectly in 1857. And this year, 1859,) I had a full crop of fowl meadow grass, the clover having been completely killed out last winter; there was about four tons (six loads) on two and one-eighth acres of land; this I have saved for seed, and shall sow all my marsh and lowland with it in the spring, as the fire has burned over most of my marsh lands, and they require seeding again.

The few little willow patches sown with it at first had spread all over the driest parts of the marsh, and made a very good mixture of marsh hay.

For the New England Farmer.

SAW-DUST AS A FERTILIZER.

To a notice rendered some weeks since, in your valued journal, Messrs. Editors, asking the worth of "Saw-Dust as a Fertilizer," I respond as far as able, through your columns. Since then, further inquiries have been made, to which I am unable to answer, until a coming year. But in looking over some books of "clippings" from newspapers (the gathering of which I commenced some twenty years ago, until they have swelled to many large folio volumes,) I find the following, which, if of any use, I shall amply be repaid for looking it up. Unfortunately, I do not find from what paper I took it, or of what date it was. But I copy it exactly as I find it. Let me hope if it does no good, like the stick in the old woman's porridge, "it will do no harm." In using "Saw-Dust as a Fertilizer," I presume it is not needed for me to say if used on dry soil, it must be well rotted or dampened. But I have found it to work best generally on soft or moist ground. I give the extract herewith as referred to.

"SAW-DUST FOR ORCHARDS.

"A year last fall, I hauled a load of old rotten 'saw-dust,' and threw it around my young apple trees. My neighbor over the way is one of those characters who plods on, in the same old track that his father and grand-father did before him, believing that they knew all, and more too. My neighbor said, if I put saw-dust around my trees I should surely kill them! I told him I would risk it, 'any how.' I put fresh stable manure around one row, and saw-dust, around the next. Around another row I put leached ashes. And the remainder of the orchard I manured with rotten barn-yard manure, and in the spring spread it, and well planted the ground with corn and potatoes. The result was, many trees grew very luxuriantly, but the trees where the saw-dust was grew the best, the bark being smoother, and the trees had a healthier appearance. I will state, also, that that part of the orchard planted to potatoes grew greatly better than that part planted with corn. The soil was clay loam."

December 15, 1859. OAK HILL.

For the New England Farmer.

TAXES.

MR. EDITOR:—As a new Legislature is soon to assemble, and as you will have the honor of a seat in that branch where farmers most do congregate, I wish to call your attention, and that of your readers, to the laws of Massachusetts for the assessment of taxes. Ever since the time of Cæsar Augustus, and I know not how long before, the decree has gone forth that all the world shall be taxed, and in this country, the correct principle of taxation is generally admitted to be in proportion to property. Ability to pay, however, is far from being in that ratio. For instance, Mr. A, with a family to support, is worth but $1000, and is taxed $7. Mr. B is worth $2000, and is taxed $14. Now it is plain to see that Mr. B, with an equally expensive family can pay $14 much easier than Mr. A can pay $7. Yet no one supposes that any plan can be adopted which would make it equally easy for every man to pay. The principle of taxing in proportion to property, I think, is right and practical; but you will see that our laws need a radical alteration to make them conform to this rule.

To illustrate, suppose two young farmers wish to purchase homes for themselves and families. They go to the same neighborhood, and buy farms of equal value, say $3000. One has the cash, probably left him by his father, to pay for his, and $1000 left for stock and tools. The other, by six years of economy and hard labor, has saved $1000. He pays this, gives his note for the balance, $2000, and secures by a mortgage on the farm, and buys his stock and tools on credit. Now he is worth but one-fourth as much as the first; but by our laws they must be taxed equally. Again, suppose two merchants or mechanics commence business in the same place, and require an equal amount of capital to carry on their business, perhaps $3000; one has cash to pay for his whole stock, and begin clear of debt; the other has nothing but a character for honesty and integrity, and he

gets trusted for the whole, and our laws tax them alike! Now these are not solitary cases, but they abound in every village and neighborhood in the Commonwealth. Is this right? Is it just? Does not the law bear oppressively on those least able to sustain the burden? I think you will answer, yes.

But this is not all. Our laws are not only unjust and oppressive, but their tendency is to discourage young men from having a home of their own, and especially from engaging in agricultural pursuits. Farms and stock, cannot like cash and notes of hand, be concealed. The assessors will find them, and they cannot escape the tax, though they owe for the whole. The result is, of two evils, they choose the least; rent a house or farm, move from year to year, till furniture is spoiled, wife discouraged, habits of negligence acquired, local improvements disregarded, and the end is poverty and ruin!

Many more reasons might be added, but I will now merely suggest the remedy. And first, let the assessor be required to take a true and perfect invoice of all personal property, notes secured by mortgage excepted, deduct debts and tax the balance; or in other words, apply the same principle to all personal property, that is, by law, now applied to cash and notes of hand.

Secondly, let all taxes on mortgaged real estate be set to the mortgagee in proportion to the notes thus secured.

Let this be done at the next session of the Legislature, and the young men of the Commonwealth will remember you with gratitude, and you will be welcome to your $4 per day for all actual attendance. R. M.

Westboro', Dec. 29, 1859.

EXTRACTS AND REPLIES.

MAKING WINTER BUTTER.

In reply to Mr. Leonard, of New Bedford, I would say:

Immediately after milking, strain your milk into tin pans, and put it into or on your cooking stove until the milk is quite scalding hot, then remove it to a shelf or cupboard adjoining your kitchen with a temperature of from 60° to 70°. Skim it within three days. You may keep the cream, if necessary, two weeks or more. To a quantity of cream sufficient for ten pounds of butter, put in the juice of two or three fair sized orange carrots. Then churn from ten to twenty minutes, with your cream at a temperature of 55° to 60°, and if you do not succeed in making good, sweet, yellow butter, worth 25 to 30 cents per pound, I will pay for your copy of the *New England Farmer* for the year 1860.

For many years I have made butter through the entire winter, of as rich fragrance and aroma as can well be made in June or September. Try it, brother Leonard. Joshua T. Everett.

Everettville, Princeton, Mass., Dec. 28, 1859.

WARTS ON SHEEP.

Will some one of your readers inform me what the cause is of sores on the sides of the mouth of my sheep? They look like clusters of warts. The sheep are otherwise in good condition.

East New Sharon, 1860. A. R. Hall.

WINTER BUTTER.

Friend Leonard inquires through the *Farmer* how he can be relieved from the wear of fourteen hours' churning? I will give him the benefit of my experience, as that is what we have a farmers' paper for, and inquiries, "Extracts and Replies," stand prominent in its good features.

Strain the milk and set it over a kettle of hot water until it skims freely, or is as hot as you can bear the finger in it; then set it in a pantry or cupboard near the kitchen where the temperature is not below 60° through the day, and does not go down to freezing in the night; let it remain forty-eight hours, then skim with as little milk as possible. Do not keep the cream more than from five to seven days, if you want good sweet butter. Be careful not to commence churning when your cream is too cold, as in that case it becomes frothy, and the butter-making is retarded. I have made good, firm, sweet butter up to the present week, with from fifteen to thirty minutes churning. I think very favorably of the plan of giving a few carrots daily to milch cows, as it improves both quantity and quality of the butter.

The thermometer this morning at 2 o'clock was at 21° below zero, and now, 2 P. M., it is 6° below.

Royalston, Vt., Dec. 28, 1859. A. P. F.

FOWLS FOR COLD WEATHER.

Will any of your correspondents inform me through the paper which breed of fowls stand cold weather best? I have kept the Spanish, which are good layers, but are not very hardy. I wish to get the hardiest kind, and at the same time get good layers. P.

Woburn, Dec. 2, 1859.

HOW TO FEED FOWLS.

When my chickens are quite young I give them Indian meal five times a day, and when old enough to lay, about a table spoonful of cayenne pepper with their meal once a week, for twelve hens. This, with plenty of lime and gravel, enables them to give near twenty dollars a year for their products.

A. R. H.

RED-TOP.

I would inquire through your paper how much red-top seed I should sow per acre, and what ground is the best to sow it on? Also, if it does well mixed with other seed, and if so, what kind is best? W. H.

Remarks.—Red-top is one of the best grasses we have, and its seed is usually mingled with one or more other varieties in seeding our lands. The quantity usually employed per acre is one peck of herdsgrass, three or four pecks of red-top, and six to ten pounds of clover; the latter being sowed in April.

PROFITS IN AGRICULTURE.

To learn whether there are profits in farming or not, the true way seems to me to be as follows: reckon the interest on the stock, tools and farm, and add to the labor; then get the value of the proceeds, and strike the difference, and you will see at once the true result.

Jericho Centre, 1860. Harrison Webster.

For the New England Farmer.

NOTES FROM SANDY RIVER.

And here comes the *New England Farmer*—the very one that I have desired so long to make an acquaintance with; the friend, counsellor, and encourager of the sons of toil. The very one that I have seen so many gems of useful thought attributed to, by its co-laborers, in aid of agriculture. Yes, it has just come, and with it its December companion. O, that I could have the eleven volumes of your compend—the monthly! Come, some gentle zephyr, and waft them to my rural home, so that, while the Sandy, in its icy fetters, goes murmuring by, in hushed tones, I may

"From labor's cares awhile forbear,"

and feast upon the full supply of milk and honey therein contained.

Some of your contributors, I am sorry to see, still hold a threatening wand against the robin-red-breast. A noble, sprightly, diligent bird is he. I would rather never taste a cherry, damson, or plum, however delicious they may be, than that he should forsake my home, so that I could not see him build his nest in some favorite tree, some cosy corner, upon some beam or board, and from thence, through his season, go forth, "from early morn till dewy eve," so faithfully performing his allotted rounds. Speak for the robins; plead for the birds, so that their chorus songs may continue to be heard upon all the land in sweet, free, melodious strains.

Frosts.—The past season here has not been an exception to what your correspondents report it to have been in many other places, as far as regards frosts. May was an uncommonly favorable month for the farmers. Fodder was unusually scarce, but the early grass started up remarkably well set, and relieved not only the poor, but many of the well-to-live farmers, as well as being a timely supply to many starving beasts.

But the "frost story" commences with June, which gave killing ones on the 6th, 10th and 12th. July 5th, white frost. August 30th, one which killed corn in some places. September 7th, 8th, 9th and 16th, still severer.

Snow.—We are having snow storms in bountiful profusion. Already (in December) there have accumulated three feet of snow, notwithstanding the rains, upon the high lands. The first snow for the season, on Mounts Saddleback and Abram, was seen on the morning of September 14th; and followed by a severe snow squall down the river on the same day between 11, A. M., and 2, P. M.

I interrogated every old resident that came within my circle, to know when, if ever before, they had seen the like, and their united response was,

"Only this, and nothing more,
Never before!"

So then this is worthy of record as being unusually early, at least, and to be put with the minor incidents that go to make up an uncommon chain of events for 1859, long to be remembered as such by many.

The drought is broken, then, after the sun's scorching rays are withdrawn; and that which seemed to be so desirable to have in "vernal showers," is now descending in fleecy snows of velvety softness, covering the fields before they are frozen to any amount.

Yet the New England pleasures, amid these frequent snows, are nearly as numerous as ever, although the boys and girls have been deprived of some of their accustomed skating parties, because the lakes and rivers refused to hide their faces beneath their icy veils, to give them a play-ground to enjoy their health-giving and innocent sports upon.

Come, then, *New England Farmer*, with thy well-filled budget of gems—

"Diffused, yet terse, poetical though plain,"

to the beautiful Sandy River Valley, and receive a thrice welcome. O. W. TRUE.

Elm Tree Farm, Avon, Me.

For the New England Farmer.

PLANT SUGAR ORCHARDS.

Mr. EDITOR:—I have been thinking for a number of years, and with a good deal of interest, on the importance of the sugar maple to the inhabitants of Vermont, and to the northern States in general. Sugar will always be deemed a necessity, and if we have the means of producing a good article with little labor, it would be the height of folly to let the chance slip, through indolence or miscalculation. Twenty and thirty years ago, I regretted, very much, to see the maple trees of the primitive forests disappearing before the axe for fuel and other purposes, but I have since learned that they may more than be replaced, and that the day of maple sugar has but just begun, if the farmers will only have it so.

Sugar orchards of second growth trees are far better, and more profitable, than old ones. From one to three acers of land is all the farmer now needs to supply his family with this necessary and agreeable article. Some rocky or stony side-hill, (not too steep,) having an aspect to the east or south, well planted with sugar maples, will, in ten years, be worth more for the above indicated purposes, than any other three acres on his farm; besides, it may at the same time produce a fair crop of feed.

The outfit for fitting up good sugar works of lasting materials, cannot be very expensive, and when once done, and well taken care of, will be an excellent investment. If our fathers could find it profitable to manufacture sugar, when they were compelled to dig out troughs from pine logs, and boil in five-pail kettles against logs in the woods, we, certainly, with our present appliances and improvements, have no excuse for neglecting the means so obviously within our reach. A good share of neatness, and a little skill, will enable us to produce as good an article as can be obtained from the cane or the bee. These considerations, and many more that might be adduced, should stimulate us to make the most of our own resources, and I much regret that I have not the power to arouse the attention of the land owners of this northern section of country to the great importance of this subject. But I will do what I can, and hope that some abler pen will take up the subject, and pursue it in a manner commensurate with its importance. A. PIXLEY.

Enosburgh Falls, Vt., Dec. 13, 1859.

REMARKS.—Capital suggestions. We have no doubt they will be acted upon.

FEEDING COWS.

A CORRESPONDENT inquires how much hay a good-sized milch cow should eat per day, fed on hay alone? How much, without roots, and how much when not giving milk? A common guide is, we believe, that animals require about three per cent. of their live weight. But no fixed rules, we think, are reliable. Two cows standing side by side, of nearly equal weight, and fed precisely alike, will vary materially in the amount of milk, which they will yield; or in fatting, one will gain a half or a third more than the other, on precisely the same kind and quality of food.

Horses should be confined to limited quantities, as, if supplied with the fodder, they will eat more than is healthful or economical. Milch cows may be allowed all the hay they will eat with a good appetite, and to that may be added with economy a little grain, or occasional messes of oats. Of course, a cow that gives no milk, will not require so much feed as one that has that constant draught upon her.

The whole matter of feeding stock requires experience, and then the exercise of a sound judgment, in order to economize the fodder, and get a profit from the animals fed.

A sufficient number of reliable experiments have not yet been instituted, to show those feeding stock whether it is best to feed hay, grain and roots in a raw state, or to incur the expense of cooking it. From the experiments instituted, and which have come to our knowledge, we are inclined to the belief that an economical arrangement for steaming, soaking, or partially cooking food for all farm stock, will be found, in the end, the most profitable course to take with it.

Mr. C. H. WATERS, of Groton, Mass., a gentleman who has an inherent love for agricultural pursuits, and who is willing to expend a portion of his means to promote the interests of the farmer, recently informed us that he had been cooking hay for a herd of twelve cows, and had continued his experiments through several consecutive months. His first trial was by steaming the hay, supposing that by subjecting it to a pressure of some ten or fifteen pounds of steam, he should so affect the fibres of the hay as to make it soft and palatable, and commence, for the animal that is to consume the food, the first process of digestion. To his surprise, however, he found the steam would not accomplish this desired result; the hay came out about as hard and wiry as before it was immersed, and without receiving any evident advantage from the process.

His next experiment was to heat water and pour it upon the hay, covering the box, and allowing the hay to soak in the water twelve hours, and feeding only twice a day. Under this process his cattle gained flesh, and the milch cows gave an increased quantity of milk, upon an amount of hay a little *less than two per cent. of their live weight.*

Mr. C. M. DAVIS, a milkman, in Cincinnati, recently communicated some facts to the New Orleans *Price Current* which are applicable here. He says,

"I commenced the use of your steam-boiler on the 7th inst., at which time my ten cows gave 60½ quarts. My daily feed was ten buckets of middlings, and corn and cob meal about equal parts.

Cows gave in the commencement	60½	quarts.
On the 8th they gave	66	"
9th (reduced feed two buckets)	69½	"
10th they gave	71	"
11th " "	73	"
12th " "	73½	"
13th " "	76	"
14th " "	77½	"

My milk has improved in quality, and my cows in appearance. I shall make further experiments in feeding the corn and cob meal separate, as also with clear cob meal, and report again in about ten days."

From this it appears that the gain in seven days was 17 quarts, being 28 per cent. gain in milk, with a saving of 20 per cent. in food.

ROLLING SNOW ON WHEAT FIELDS.—A correspondent of the *Toronto Globe* (C. W.,) advances the opinion that rolling the snow on the autumn wheat in winter would be an effective means of preventing winter-kill, by rendering the snow less liable to melt on every sudden thaw that occurs. He says the practice is extensively followed in Sweden. A good deal of discussion is taking place in the columns of that paper, on this subject, from which we gather that it yet requires the test of actual experiment to decide whether any benefit is to be derived from the operation or not.

MAKING CHEESE IN WINTER.—A correspondent of the *Rural New-Yorker* regards the present practice of making it in the summer both absurd and expensive. The winter, he says, is by far the best time to make cheese, because the milk is richer, more easily managed, and there is no danger from flies, or souring of vessels. There is also more time, and milk can be produced cheaper, and of a better quality than in summer.

For the New England Farmer.

PRAIRIE BREAKING IN KANSAS.

Letter from a Lady—A Professional Man Turns Plowman—New Models his Plow—His Success as a Prairie Breaker—Distilleries and Public Schools—Hard Plowing—Buffalo and Wild Horses.

Kansas is now taking a resting spell, preparatory to asserting her right as a Free State, and claiming her privilege to enter into the circle of the States, the coming session of Congress. Emigration is slow, business is stagnant just now, and my husband, a professional man, finding too much time to spare, and having imbibed quite a fancy for farming, through the influence of your paper, has concluded to gratify it. But he took hold of the most laborious part, as his first attempt—that of prairie-breaking, it being the most profitable just now. Of course, as this is a country which promises but little business to "rock-lifters" and "stump-pullers," he "pitched in" with the confidence and energy of an old farmer, sure of success. So he purchased three yokes of oxen and a fifteen inch plow of western manufacture. I think it was manufactured in St. Joseph, Mo., the place which supports two distilleries, that turn out each one hundred hogheads of whiskey daily, but cannot support one public school, and has a population of 10,000 inhabitants!

Of course, a description of a breaking up plow will be interesting, and perhaps amusing to many of your readers, especially to the steam-plow advocates.

He made two standards, perforated with holes, an inch apart, and mortised them into the beam of the plow. One standard was placed six inches, perhaps, back of the clevis, and the other eight inches from the end of the beam, between the plow handles. Then he made two wheels, one ten inches and the other twenty inches in diameter; said wheels were cut from logs of that size, and were six inches thick. He connected the wheels by an axletree. He then mortised two upright standards into the axletree, leaving a space between the uprights to introduce the end of the plow beam which rests upon the axletree. Making a lever of sufficient strength, he connected one end of it, by a wooden pin, with the standard next to the clevis. Mortising a hole through the other end of the lever, he then introduced the standard between the plow-handles through this mortise, and behold! the self-controling, non-holding plow was ready for action! The reason why one wheel is made larger than the other is, the large wheel runs in the furrow and the small wheel upon the sod, thus making the plow run even.

Now the theory of this simple affair is, that it makes the plowing of uniform depth, and also dispenses with the laborious task of holding the plow, needing only a man to guide the oxen. In commencing to plow, at the beginning of the furrow, my husband raises the lever which puts the point of the plow in the ground. The end of the lever is then made fast by a wooden pin, to the standard which is between the plow-handles. The furrows were half a mile long, and the plow thus adjusted would run the whole length upon the wheels, without guidance, or making any "balks," the plowman's plague. At the end of the furrow he takes out the pin and lowers the lever, which throws the point of the plow out of the ground. Then it runs upon the wheels, and needs no tipping. He then drives to the other side of the land, raises the lever again, and goes ahead.

Breaking this way is certainly easier, as every one will acknowledge, who has held the plow all day. The labor of breaking the green sward in New England is nothing in comparison to breaking the virgin soil of the western prairies, which has been rendered hard and tough by the unobstructed rays of the sun and centuries of trampling of buffaloes, horses, and other wild animals.

When the ground is moist, a good team will break two acres per day. Experience has proved to us, that the lighter the sod is broken, the sooner it decays. The ground depth is two inches. The price for breaking prairie is from three dollars and a half to five dollars per acre, according to the quality of the soil, and its freeness from grubs and roots. So a good heavy team will net the owner a fair profit, and the cattle need no other sustenance but the prairie grass, upon which they will grow sleek and fat, in spite of their continual hard work.

Of course, there are many discomforts with all this profitable labor. When the strong wind arises—and Kansas is proverbial for its high breezes—the dust rises so thickly as to nearly choke the plowman, and compelling him to wear "goggles." Then, perhaps, "Bright" or "Broad" will break a bow or snap a chain, and one must go two, three, and sometimes ten miles, to get it repaired, which is rather provoking to the time-saving, money-loving farmer. Then, in this country, the cabins are, as yet, "few and far between," and the prairie-breaker must camp out in his wagon, cook his own food, and be altogether his own servant. An occasional "shake" is pleasant, if one does not shake his clothes off, as it relieves the monotony of his time, and teaches him how to appreciate the philosophy of suffering. He must rise before the sun, and search through the tall prairie grass—most cattle wear bells—for his oxen. Rubber boots and rubber leggings are indispensable, if one does not wish to go the whole day with wet garments; for in the morning, the grass is as wet as if a shower had passed over it.

But there is one good thing in breaking up prairie, for if one does not line his pockets, he certainly is richer in experience, and knows how to appreciate the domestic and social qualities of home. Another good thing; my husband has worn out all his old clothes, of which every one in Kansas has a surplus. If any of your readers have any old clothes to spare, please send them to Kansas, for *good* clothes are not worn here.

Yours, from the prairies, SUSIE V.

Sumner, K. T., Oct., 1859.

SHEEP AND DOGS.

Mr. Powers, of the *Wisconsin Farmer*, after publishing the statement that, in only eleven of the nearly one hundred counties of the State of Ohio, the assessors return over 7000 sheep killed and nearly 8000 injured, in the year 1858, by dogs, at a cost to the owners of over $25,000, says:

"Is it not a shame and disgrace that the United States, with all its various and unequalled facilities for wool-growing, should, through its love of dogs and hydrophobia, buy some twenty to thirty mil-

lions of pounds of wool from foreign countries, because its farmers dare not and cannot safely keep sheep?

We have sold our last sheep this fall, and a fine flock at that, and for a low price, because we dare not keep them, through fear of dogs. That many others are abandoning the business within the range of our acquaintance for the same reason we know. How long shall this condition of things last?"

For the New England Farmer.

COST AND PROFIT IN FARMING.

MR. EDITOR:—In a late *Farmer* you call attention to an article published in the same paper with regard to the cost and profit, or rather no profit, of farm productions. With your permission, I propose to review some of the statements of that communication, believing that a more hopeful view of the subject can truthfully be presented. By his figures an acre of corn has cost $10 more than the crop has brought in market. I propose to trace out the probable future crops of that acre of land, assuming the figures all correct, though I think some of them might be changed, and not stopping to argue that more manure would have paid, or that the crop might have found a better *home* market. I will lay the land down to grass with barley, entering it in debt.

	Dr.
One acre of barley	$10,00
To interest on the debt one year	.60
To plowing, one man, a well trained yoke of oxen and plow one day	2,25
To boy, horse, harrow and roller one day	1,50
To seed barley, 1½ bushels	1,50
To man sowing barley and grass seed, ¼ day	.25
To one man mowing, raking and getting in barley, to the amount of one day	1,25
To a boy one day, and yoke of oxen ¼ day	1,00
To threshing and winnowing	4,00
To all other expenses, consisting of taxes, interest on capital, labor, &c.	4,00
Crop	$26,35
	Cr.
By 18 bushels barley	$18,00
By straw	$5,00
	$23,00
The debt is now reduced to	$3,35

One Acre in Grass.	Dr.
To previous cultivation	$3,35
To interest on the debt	.19
To labor amounting to one man two days, and one yoke of oxen ¼ day, mowing, raking, and getting in hay	3,25
To other expenses, consisting of storage, fences, taxes, &c.	.6,00
To herds grass, red-top and clover seed	4,00
	$16,79
	Cr.
By 1½ tons of hay, which finds a home market	$18,00
Net profit	1,21

Second Year in Grass.	Dr.
To three days' labor in consequence of dull weather, cutting and curing hay	$4,25
To one yoke of oxen, cart and wheels, ¼ day	.50
To all other incidental expenses	.6,00
	$10,75
	Cr.
By 1½ tons of hay	$18,00
By amount brought forward from last year	1,21
By interest	.07
	$19,28
Net profit	$8,53

Now we have got the balance on the *right* side of the ledger, and propose to expend $15 in top-dressing, when we may safely calculate on three more crops as good as the last two have been. No farmer should expect to be paid by the first crop, after breaking up land exhausted by repeated cropping, but should lay it down to grass in an improved condition. Mr. Pinkham seems to have run into this error, though I find much to approve of in his communication. I have for a long time, been aware that some farm productions are often sold below cost, but I have looked upon corn and stock-raising as among the paying operations of the farm, when judiciously managed.

In farming, as in everything else, many persons form too hasty opinions, and are too easily discouraged. Intelligent and persistent cultivation on a farm of no more than average facilities, is sure to succeed. There are many men engaged in farming who have no taste for, and no real interest in the occupation.

When a man finds out the business best suited to his capacity, his fortune is more than half made, and his happiness very much promoted. I would then say to every young man, search diligently to find out your capacity; and if your mind leads you into agriculture, take hold of it with a will that is an earnest of success; and let no trifles nor apparent failures discourage you. Cultivate the mind as well as the ground, bringing all the information you possess, or can gain, to bear upon your chosen occupation, and before many years pass you will be proud of your choice.

If time and the editor permit, I will review Mr. Pinkham's figures on calf-raising in a future article. H. KIMBALL.

Kennebunk, Me., Nov. 19, 1859.

REMARKS.—We cannot decline your kind proposition, as no question connected with agriculture is of more vital importance than this. The oft-repeated tale, that farming is unprofitable, and unfashionable, crushes the occupation more than all things else.

We observe that you have allowed the farmer one dollar per day for his labor upon his farm; is there not, also, a profit on that labor, as well as to any other person who works by the day? If so, there is an increase of profit of even more than you have presented. There certainly is a profit in the labor of any person who earns more than a frugal subsistence costs.

VITALITY OF EGGS DESTROYED ON RAILROADS.—Eggs carried by railroad cannot be depended upon for hatching—the continued jar shaking the life out of them. The N. Y. *Tribune* relates the experience of a man, who said that he had found on trial that eggs could not be carried twenty-five miles safely unless special precautions were adopted. Packed carefully in a small basket, and this held constantly in the hand, they will ride without jar and without injury to their vitality.

SELF-ACTING FARM WELL.—Persons desirous of learning more about *Ayer's Patent Self-Acting Farm Well*, may do so on application to Mr. ALVAN WARD, of Ashburnham, Mass.

WINTER SUNSET.

By graceful scrolls of ice-like, pearly blue,
And streaks of violet-red, like new-born flame,
Damp heaps of gathered stubble leaping through,
Pale gold in lengthening bars, and many a hue,
Shifting too suddenly for eye to mark,
On leaden-colored wave-clouds, thick and dark,
As nearer still the hastening sunset drew,
I knew when dreary, wild November came.

With musing heart I watched the beautiful sight,
While the coal brightened, while the young fire blazed,
Till all had vanished, twilight sunk to night,
And star by star hung out its lonely light
O'er fields of dark to stretch a monarch ray,
Like beacon-light across the mariner's way;
But ere the evening glory took its flight,
Some peaceful thoughts breathed on me as I gazed.

Dread not of earthly change the wintry night;
Be faith in God thy bosom's constant guest;
Go not self-panoplied to stormy fight,
Nor stay encastled in presumptuous might;
Thy God's pavilion stretches o'er thee still;
In coming darkness he will work his will;
With lifted eye behold the clouds now bright
With hues that harbinger the pilgrim's rest.

Warm-housed, with curtains down and fresh-trimmed light,
Or hurrying home with mantle-shielded eyes,
Shivering and chattering, we miss the sight
Of beauty in the wintry sky, more bright
Than in the spring or summer-time we see;
And as a vision came these thoughts to me
In the fair eve of that November night,
When looking on that sheen of numberless dyes.

Monthly Religious Magazine for January.

PROPORTIONS OF THE HUMAN FIGURE.

The proportions of the human figure are strictly mathematical. The whole figure is six times the length of the foot. Whether the form be slender or plump, this rule holds good. Any deviation from it is a departure from the highest beauty of proportion. The Greeks make all their statues according to this rule. The face, from the highest point of the forehead where the hair begins, to the end of the chin, is one-tenth of the whole stature. The hand, from the wrist to the end of the middle finger, is the same. The chest is a fourth, and from the nipples to the top of the head is the same. From the top of the chest to the highest point of the forehead is a seventh. If the length of the face, from the roots of the hair to the chin, be divided into three equal parts, the first division determines the point where the eyebrows meet, and the second, the place of the nostrils. The navel is the central point of the human body, and if a man should lie on his back with his arms extended, the periphery of the circle which might be described around him, with the navel for its centre, would touch the extremities of his hands and feet. The height from the feet to the top of the head, is the same as the distance from the extremities of the other when the arms are extended. These are the general measures of the species.

LARGE EARS OF CORN.—A correspondent of the *Ohio Farmer* says: "I shelled several ears, and they produced as follows: One 1060 grains; another 1100; another 1100; and another 1164. I have heard old farmers say that a paper, wrapped around an ear of corn, the ear then taken out, will not contain the shelled corn of that ear. I tried it with two ears, and the paper would not hold the corn; one of those ears had 936 grains on it, of which 535 filled a pint cup. At this rate, it would take 34,540 grains to make a bushel."

For the New England Farmer.

STUDIES OF THE SOIL.---No. 1.

BY WILLIAM EDSON.

The two sciences, as such, geology and chemistry, from which must arise in a more or less direct manner all theory in relation to the formation and treatment of soils, are but little understood among practical men, and are commonly treated by them as subjects entirely aloof from their duties; yet every intelligent working man, and especially the farmer, is both a chemist and a geologist, and depends, in a degree, for his success, upon his practical knowledge of these sciences.

Aside from the merely business view of this knowledge, there is another in which its value is greatly enhanced,—I refer to its effect upon the mind of the recipient. We all live in two worlds, the world of mind and the world of matter. It is the lot of most to labor in one or both of these. Necessity requires us to labor in one, the world of matter, which is the labor of the hands. Manliness and Christianity urge us to labor in the other, which is the work of the mind. Life cannot be truly enjoyed independent of either health of mind or health of body, and as health of body depends directly upon bodily exercise, so health of mind depends directly upon mental exercise.

All agree that, in the duties of the intelligent farmer, the labors of the hand and brain are most harmoniously blended, and that it is for him to enjoy that rarest of all blessings, a "sound mind in a sound body."

The farmer, as he follows the plow, may not be wholly engrossed in mere manual labor—every clod that the plow turns up, will give him a lesson in geology, and every rootlet a lesson in botany; let him be ever so indifferent, nature will insist upon his learning some one of her many secrets; she will give him something to treasure up for his future use or pleasure. By this almost involuntary study has the farmer's storehouse of knowledge been filled, by it the rude chance farming of the ancients has advanced to the present state of intelligence and certainty.

Until quite recently, the term "scientific farming" was not used, and we now hear it oftener as a term of reproach than otherwise; but it cannot be denied that science, even as put forth by the most impractical, has done the agriculturist great good, and is destined to do still more. Perhaps one of its greatest benefits, up to the present time, is that arising from the strong feeling of emulation among farmers of the old school, to prove by their crops and profits that they can excel the theorist; urged by this feeling, they have eagerly sought for improvements, and applied them with a skill which only the good old-fashioned farmer is capable of. It has also caused discussions, and excited a thirst for experiment and inquiry which cannot result otherwise than in good for all. These are only some of the incidental benefits arising from the application of science to agricul-

ture; the true value of this department of scientific knowledge cannot be estimated, since much more is now known than has yet been generally and skilfully applied; and, again, there is much of agricultural chemistry which is yet in so vague and uncertain a state as to be almost, if not quite worthless, as far as practical farming is concerned.

If it were true, as some have the hardihood to assert, that no practical good, as far as crops and profits are concerned, arises from scientific research in this department, yet its benefits upon the mind of the farmer would be incalculable, as it raises his thoughts to the contemplation of the laws of nature, giving him one of the most stable of all pleasures, and in health of mind, the crown of "green old age."

Assuming that every farmer is both a practical chemist and geologist, since the most common duties of the farm require a knowledge of these sciences, I wish to call attention to the chemistry and geology of the surface stratification.

For the sake of simplicity in the treatment of the subject, I will divide the varieties of soil into three classes, namely, 1, mechanical; 2, chemical; 3, vegetable. This general classification may strike the geological reader as novel and perhaps inadequate, but for the ordinary discussions of practical men, I think it will be found not inappropriate, if we bear in mind that the terms used are not intended to indicate by what agency the materials of which the soils are composed were brought into their present positions, but simply to express the present condition of the soil itself. Thus, by mechanical, I would designate all earths which bear evidence of not having undergone any great chemical or vegetable change since being deposited in their present position; that is, the mixture of the different materials of which they are composed is simply a mechanical one; by chemical, all that indicate by their strata and composition that some important change in their qualities has taken place since their deposition; and by the last term, all that are principally made up of vegetable matter.

The first of these formations, or classes of formations, to which I give the name mechanical, may be found in nearly all positions, though perhaps oftener in low than high grounds. Under this head will be classed moraines, sand-hills and bars, ancient river-beds, and all such surface strata as bear evidence of having been deposited by some violent mechanical action.

Upon examination of the strata of this class, we find them sometimes composed of regular layers of material, which is not always coarsely divided, but yet is never thoroughly, chemically united; others have no regular layers, but seem to be composed of confused masses of gravel, sand and clay, which are not intimately united, nor in any manner definitely divided; here is a bed or layer of gravel—it extends a few feet, and abruptly terminates in a bed of clay, or perhaps gradually growing thinner and thinner, disappears between layers of clay and sand; again, we find strata of almost pure sand. I cannot enter into a lengthy explanation of the causes of these various phenomena, but will briefly state them; thus, when the layers are comparatively regular, they are supposed to have been deposited from running water, either fresh or salt. The irregular stratification, which in fact covers a large portion of the eastern part of Massachusetts, is undoubtedly owing to glacial action, as it occurs in ice-bearing currents, while the occurrence of sand-hills is generally assigned to the action of the wind.

The currents from which were deposited a large portion of the surface formations of the eastern part of New England, are supposed to be analogous to the oceanic currents of the present, and probably arose from the same causes, namely, evaporation, difference of temperature of the polar and equatorial regions, and the earth's rotary motion.

The currents of the ocean are, without doubt, constant, considered as a whole; in other words, there always exists a series of currents and counter currents, those from the poles moving southwesterly, and those from the equator north-easterly, of the northern hemisphere; for the southern hemisphere, the reverse is true. The existence of these currents is thus accounted for. The velocity of the surface of the earth at the equator is about one thousand miles per hour, towards the east; while at 45° north or south latitude, it is but seven hundred and fifty miles per hour; therefore, water at the equator has a velocity of one thousand miles per hour, and water at 45° but seven hundred and fifty miles per hour; now, if, from any cause, a body of water moves from the equator towards the north, it will still retain its easterly motion of one thousand miles per hour, lessened only by friction; hence, when it arrives at 45°, where the surface motion of the earth is but seven hundred and fifty miles per hour, it will have an easterly motion exceeding in rapidity that of the earth's surface by two hundred and fifty miles per hour, if it were not reduced by friction; as it is, the excess is great; this excess of velocity being combined with the northerly direction gives the currents their north-easterly course. The same reasoning applied to currents flowing from the north pole to the equator, will show why all such have a south-westerly direction. The gulf stream is an example of the first, and the currents which bring down polar ice are examples of the last. Balloonists take advantage of this same principle, and found upon it their theories of easterly aerial currents, in which they think they may be able to cross the Atlantic. The effects of these currents are *abrasion* and *drift*.

The action of a current of water sweeping over the surface is, first, to remove all loose earth from high points and deposit it in valleys; but its effect does not end here, for no sooner is the loose earth removed, than the solid rock is attacked, and in its turn carried down to the valleys. This mechanical action upon the rocks, together with the chemical decomposition that is constantly taking place, is called detrition; the resulting deposit is called drift.

Currents of air produce the same results as currents of water, and though the action of the wind is much less important, it is still so great as to be well worth careful consideration. The aqueous currents cease their action before the land becomes inhabited, but the aerial ones are always at work.

The effect of abrasion upon the surface is perfectly obvious; it can leave nothing but a barren and hard strata wherever it takes place. Though drift is but the counterpart of abrasion, its action is much more complicated and difficult to

understand. Its effects are commonly just the opposite, for wherever drift accumulates, there we may be nearly sure of finding good land. In New England, wherever a soil is evidently composed of drift from an oceanic current, it is easy to state its chemical composition, as originally deposited; we have only to examine the exposed rocks lying in a direction north-easterly from it; their nature must of necessity determine the nature of the soil in question. It should be remembered, that, in the examination of soils, this is to be considered but as a general truth, and that there are so many modifying causes that this knowledge alone will not enable one to determine with any degree of accuracy the present chemical nature of the soil.

One of the most important considerations for the New England agriculturists, and one in which almost every farmer is directly interested, is that of river and lake deposits; these consist of not only large amounts of finely granulated mineral, but also vast quantities of vegetable matter. The extreme richness of such deposits must be acknowledged by every one who considers the following facts: first, the minerals of which they are composed are finely and intimately mixed; second, the finely divided minerals are not only carbonized, but are brought in connection with particles of carbon and decaying vegetable matter or humus; and lastly, the entire mass is more or less impregnated with ammonia. Although it is impossible to conceive of a richer soil than this, yet it is probable that there is no class so universally neglected and despised. In scientific classification, soils formed of these deposits are called fluviatile and lacustrine; the farmer turns them off with the not very flattering title of swamp or mud hole.

As an example of the magnitude of these deposits, the following may be interesting. The area of the delta of the Mississippi is 13,600 square miles; the average depth of deposit is 528 feet, and it has been estimated that the river annually deposits thirty-seven hundred millions of cubic feet! This at first thought seems large; but even at this rate, the venerable father of rivers must have diligently labored for sixty-seven thousand years.

In a future number the chemical formation and composition of soils will be considered.

Boston, Jan. 4, 1860.

Club Footing.—A writer for the *Michigan Farmer*, thinks that the club-footing of cabbages results from a deficiency of moisture in the soil to supply the natural exhalation of its foliage, which he says Dr. Hales found to be so great as to equal daily nearly one-half its weight. He remarks that bulbous or tuberous-rooted plants will exist in a soil so deficient in moisture as to destroy all fibrous rooted vegetables. When, therefore, the moisture at the root of a cabbage plant does not equal the exhalation of its foliage, it endeavors to supply the deficiency by forming a kind of spurious bulbous root.

A Battalion of Children.—In the town of Scandiano, situate near the *Regium Lepidi* of Cicero, a battalion of four hundred boys has been organized under the direction of General Garibaldi, who having noticed, in the course of his warlike experience, that boys of thirteen and fifteen years of age had proved useful in daring military operations, made up his mind in the late campaign to enrol a battalion of such youthful troops. An intelligent young officer undertook the task of forming the legion, which at first did not number more than one hundred and fifty. Austrian persecution and patriotism soon increased their ranks, so that the battalion has now completed its numerical strength. An eye witness of their manœuvering was recently astonished to see their steadiness and precision. Their commanding officer, Count John Arrivabene, is a young nobleman of three-and-twenty.

THE USE OF TOBACCO.

The Dean of Carlisle, in a recent lecture on tobacco, at Carlisle, England, gave the following statistics:

In 1856, thirty-three millions of pounds of tobacco were consumed here at an expense of eight millions of money; five million two hundred and twenty thousand pounds of which went in duty to government, to say nothing of vast quantities smuggled into the country. There is a steady increase upon this consumption far exceeding the contemporaneous increase of population. In 1821, the average was 11.70 ounces per head per annum; in 1851, it had risen to 16.39; and in 1853 to 19 ounces, or at least at the rate of one-fourth increase in ten years. We hear of 20,000 hogsheads of tobacco in the bonding-houses in London at one time. There are twelve city brokers in London expressly devoted to tobacco sales; ninety manufacturers; 1569 tobacco shops in London; 82 clay pipe makers; 7380 workmen engaged in the different branches of the business; and no less than 250,048 tobacco shops in the United Kingdom. And if we turn to the Continent, the consumption and expenditure assume proportions perfectly gigantic.

In France, much more is consumed in proportion to the population than in England. The Emperor clears 100,000,000 francs annually by the government monopoly. At St. Omer, 11,000 tons of clay are used in making 45,000,000 tobacco pipes. In the city of Hamburg, 40,000 cigars are consumed daily, although the population is not much over 150,000; 10,000 persons, many of them women and children, are engaged in their manufacture. One hundred and fifty million cigars are supplied annually; a printing press is entirely occupied in printing labels for the boxes of cigars, &c., and the business represents 4,000,000 francs. In Denmark, the annual consumption reaches the enormous average of seventy ounces per head of the whole population; and in Belgium even more—to seventy-three ounces, or four pounds and three-fifths of a pound per head. In America the average is vastly higher.

It is calculated that the entire world of smokers, snuffers and chewers consume 2,000,000 tons of tobacco annually, or 4,480,000,000 pounds weight—as much in tonnage as the corn consumed by ten millions of Englishmen, and actually at a cost sufficient to pay for all the bread-corn eaten in Great Britain. Five millions and a half of acres

are occupied in its growth, chiefly cultivated by slave labor, the product of which, at two pence per pound, would yield thirty-seven millions of pounds sterling. The time would fail to tell of the vast amount of smoking in Turkey and Persia; in India all classes and both sexes indulge in this practice; the Siamese both chew and smoke. In Burmah all ages practice it—children of three years old and of both sexes. China equally contributes to the general mania; and the advocates of the habit boast that about one-fourth of the human race are their clients, or that there certainly are 100,000,000 smokers!

For the New England Farmer.

THINGS I LOVE TO SEE AND READ.

I love to read the *Farmer;* its extended circulation fulfils its given name, *New England.* It finds its way into every nook and corner of intelligent New England, the industrious and enterprising umpire of this continent. I love to read agricultural papers, whose correspondents are live, practical men, untrammelled by professors' theories, infinitesimal manure men, who will carry manure in one coat pocket, sufficient for an acre, and the crop in the other, if their theories are carried out, which they seldom or never attempt. It is all theory, and no practice; practice gives the lie to theory.

I love to see young men's experience in type, even if it should controvert the theories of professors of old Harvard. Facts give the lie to theories. I love to see facts from any young man, without inquiring how much his beard has grown; facts from his experience will weigh more than ten thousand theories.

I love to see the honest name of a writer affixed to his communication; his recorded name; it looks honest; it has weight; it is an endorsement. Who will take a note of hand with a fictitious name? None but flats, such as would give credence to anonymous writings in agricultural papers, which have a great bearing on the weal or woe of farmers and gardeners. They read such papers for information and instruction in their calling, which is the basis of all callings known to man, to multiply and increase the products of the earth.

Who would put confidence in a theoretic writer on hydraulics, whose theories contradicted all facts of the science? Who would employ a chimney sweep to paint his portrait? Then why should agriculturists employ ignoramuses to enlighten them? It is like the blind leading the blind; both will fall into the ditch.

I love to see a paper, which is intended for the advancement of any particular calling, contain practical matter and facts, tending directly to correct errors, and to point in the right direction to advancement; such I believe the *N. E. Farmer* to be in an eminent degree, because it seems to be wedded to facts instead of fancies; facts gathered from those who are supported by their farms, not those who support their farms by money procured in some other way. Such a paper never tires a subscriber; in it he meets his fellow-craftsman in good fellowship; face to face he reasons with him; he is of the brotherhood; equal meeting equal; no collegian intruding his classical lore upon his unappreciating tastes; no kid-gloved farmer comes up to his ideal; it is the practical, toiling farmer that gains his attention; the one that goes straight to the point, in a straightforward manner, in plain, unsophisticated language.

South Danvers, 1859. J. S. NEEDHAM.

For the New England Farmer.

THE LAWTON BLACKBERRY.

MR. EDITOR:—I have just read an article in your paper, by WM. F. BASSETT, upon the blackberry. I think he must be mistaken in the variety which he calls the Lawton—if not, I must be in mine. I purchased my vines, indirectly, of Drew & French, of New York, and I *positively know* that they produce *very sweet,* and in every way most delicious fruit, as many individuals who tasted it will testify. Mr. B. says they are so acid as to be unfit for the dessert, even when allowed to remain on the bushes until perfectly ripe. When are they perfectly ripe?

There is a rule that I never knew to fail in case of the Lawton, viz.: Let them remain on the bushes until they are very sweet. Don't be in too much haste to pluck them. After they are perfectly black it will require from 7 to 10 days to ripen them.

Since writing the above I have showed Mr. B.'s article to one of our most reliable horticulturists, who stepped in to my office, and he unhesitatingly says, "Why, he don't know anything about the Lawton Blackberry; 'tis a very sweet and fine fruit." He also says it is not "full hardy," but what he should call "half hardy."

Had I not seen him, I should have called it hardy, for the reason that mine have not winter-killed, but last summer produced good fruit at the extreme end of the vines. I would say to all who like good fruit, don't hesitate, from what been said against the Lawton blackberry, to set out good genuine vines, in a deep, light, rich soil, with a northern exposure—say the north side of a high fence or building—and you will have abundance of sweet fruit from about August 1st to September 15th, and probably still later. When my first fruit commenced to turn, blossoms were to be seen on the same bushes, and their fruit ripened subsequent to the latter date, but was not so good as that which ripened in warm weather. Several other persons in our city with whom I am acquainted, have been as fortunate in raising them as I have, in quality, but perhaps hardly in quantity from the same number of vines. I counted thirteen fine berries in one cluster, and a great many more had from nine to twelve. G. W. H.

New Bedford, January, 1860.

REMARKS.—We are happy to learn that our correspondent secures an abundance of good fruit. All we can say about the Lawton is this: we procured vines from Mr. Lawton himself, and therefore cannot doubt but they were true. We cultivated them with care, and produced an astonishing amount of the superb looking *black*-berries, but not one among them all that any person on the farm could eat, on account of their acidity. Even in the early part of October of one year, some of

the vines were loaded with the finest looking fruit, but nobody could eat it.

We hope our friends will regard the advice of "G. W. H.," to set out blackberry vines, but suggest to them to procure the plants of him or his neighbors, and then they will be likely to get fruit that is eatable. It is quite likely that the "Dorchester" went to New Bedford, instead of the Lawton.

For the New England Farmer.

THE BEST TIME FOR PRUNING AND TRANSPLANTING APPLE TREES.

PROFITABLE FARMING.

MR. EDITOR:—As I have recently endeavored to show that the cause of the potato rot is yet undecided, I shall now point out several other questions, of great importance, which seem to be left in the same predicament. To avoid taking up too much of your room at any one time, I shall, on the present occasion, point out only the three following:

1. Which is the best or most proper time for pruning apple trees?

Each season of the year, spring, summer, autumn and winter, has had its advocates. Those who practice pruning in the spring, contend that as the sap is then in full flow, and brisk motion, the wounds heal quicker than at any other season; whereas, the fact is, or seems to be, that the sap escapes so rapidly and profusely from the wounds as frequently to prevent their healing at all. In spring pruning, as soon as warm weather comes on, and the sap presses into, and distends the sap vessels, it bursts out of the recent wounds, and runs down, and blackens and poisons the bark and wood, and frequently causes the tree to droop and die.

With better reason, the same argument is urged by those in favor of summer pruning, because at that season, the leaves have attained their full size, and are in full health and vigor, and are then elaborating an abundance of sap for immediate use. At that season, a fresh wound will commence healing at once, and a new bark will be rapidly formed to cover the wound; for it is only when the leaves are in a condition to perform their proper office, that the new growth and healing can take place.

By others, the autumn is said to be the best time for pruning, because, they say, it is proper to wait until the leaves and sap have done their work in the branches, before proceeding to prune them; and then not till the leaves have fallen, and the top has become somewhat dormant, leaving the wounds to the drying and hardening influences of the sun and wind, till they become hard, sound and well-seasoned. It is said not to be material whether the wounds heal over the first, second or third year, as they will always remain in a dry, but healthy state.

The same argument has been urged by those in favor of winter pruning, and with this additional reason, that in winter we have more leisure to do the work carefully and well. But enough of this; as the question is yet undecided, and I see no prospect of deciding it, I close, by saying that I am opposed to too much pruning, at any season of the year.

2. Is the spring or autumn the best time for transplanting fruit trees?

Here is another question that is undecided. The great majority of farmers continue to transplant their trees in the spring, without stopping to inquire what may be said for or against the practice. In transplanting trees at any time, many of the roots and little rootlets are necessarily wounded, either broken and torn off, or cut off. Those who transplant their trees in the spring, cut off the supply of nutriment from the roots, at the very moment when it is most needed by the trees.

Others prefer to transplant their trees in the autumn, because they have more leisure for the operation, the ground is in better condition, and the trees are comparatively in a more quiescent or dormant state. They think, also, that the wounded and mangled roots will heal better, and be prepared to send out fresh ones even before the frost is out of the ground; and besides, that the winter and spring rains will settle the earth around the roots, so that the trees will be well established before warm weather overtakes them. In my opinion, however, more depends upon the manner in which the work is done, than upon the particular season.

3. Is farming profitable?

I had supposed that this question had been decided a long time ago, by the great numbers who, in every age of the world, have embarked in it, as a profitable business, producing thrift and abundance, and also, by the numbers who are still engaged in it, as a means of enriching themselves, and of securing a comfortable subsistence for their families, and who have never yet discovered, or till very lately, that farming is unprofitable. But it seems that the world have been grossly deceived upon this subject, for it has been recently discovered, by a gentleman of our day, and of this Commonwealth, too, that farming is unprofitable! This he has shown by a statement of figures in black and white, in the columns of the *New England Farmer*, so that there can be no mistake about the matter! He has shown, to the satisfaction of some, that every farming operation is money out of pocket; that every field of corn costs more than it is worth; that every quart of milk costs more than it will bring in the market; and that the more productions of every kind a farmer raises the poorer he becomes! These are not his exact words, but they contain the sum and substance of his doctrine. Now, if these statements be true, how comes it to pass that farmers, generally, are so thrifty, so forehanded, so rich and independent? How came they by so large a share of this world's goods? They could not have acquired so much by merely cheating one another. They must have pursued the business of farming with an industry, skill and perseverance, which made it profitable to them. But, without mooting the question further, I shall admit it to be undecided. More anon. JOHN GOLDSBURY.

Warwick, Jan., 1860.

ESSEX NORTH HORTICULTURAL SOCIETY.—At a recent meeting of this Society the following officers were elected, viz:—For President, E. G.

KELLEY, M. D., re-elected. Vice Presidents, A. W. MILTIMORE, WILLIAM ASHBY. Corresponding and Recording Secretary, A. HORTON. Treasurer, W. W. CALDWELL, Jr. Committees were also appointed on fruits, flowers and vegetables.

The Treasurer reports that 129 new members have been added; that $226,79 have been paid for incidental expenses and premiums, and that $354,36 have been added to the cash funds of the Society during the past year.

For the New England Farmer.

WHAT ONE COW DID.

MR. EDITOR: — Your correspondent from Chelmsford, I am glad to see, is waking quite an interest in relation to the profits of farming. If he is right, you, sir, are in bad business, and, with your kind, benevolent feelings, will undoubtedly take the back track, and devote the influence of the *Farmer* to dissuading the young men of New England from engaging in agricultural pursuits. I hope, however, you will not be hasty, but continue to inculcate the same old doctrines for a few numbers more, at least. Mr. P., in your last number, supposes a case, and sets all your readers to ciphering it out. Now I will state a simple fact, (my neighbors might state many better ones, if they would,) and ask your correspondent to tell how soon a young man, with ten such cows as the one I am going to speak of, would become bankrupt.

My cow calved Jan. 1. Sold the calf at five days old, to raise, for	$3,00
January and February, she gave 12 qts. milk per day, and in March 11 qts. per day—977 qts., which I sold at 3½ cts. per qt.	34,19
April, May and June, she gave 9 qts. per day, July 8, August 7, September 6—1456 qts., sold at 2½ cts. per qt.	36,40
October, 4 qts. per day—124 qts., sold at 3½ cts.	4,34
Total	$77,93

November and December she was dry. I kept the cow seven months on a mixture of English hay, oat or barley straw, meadow hay, corn stover and rowen, cut and seasoned with salt, and shorts or meal. Of this she would eat twenty-five pounds per day, (including corn butts left.)

3325 lbs., at $10 per ton	$26,62
5 qts. shorts, 5 cts., or same value in meal, per day	10,65
One peck roots per day, 5 cents	10,65
The other five months she had good pasture and corn fodder, at 8 cts. per day	12,16
Cost of keeping for one year	$60,08

Now I have sold all my fodder at the full market price, have a good pile of manure for future use, a cow increased in value, and $17 85 left. No dairy ought to average less than this.

If it were not trespassing too much, I should like to say a word on the economy of raising stock and grain, but at present, I will only remark that I know, from experience, that a young man can buy a farm on credit, support a large family, pay interest and taxes, and after a while, principal, too; and I will say, that, in looking back for many years, I cannot call to mind the first young farmer, with an ordinary share of intelligence and energy, with habits of industry, temperance and economy, who sacredly regards the Sabbath, pays his minister's tax and the printer, but has, with the help of a good wife, succeeded in acquiring a pleasant home. Indeed, I believe such men never fail.

Westboro', Dec. 20, 1859.

SILVER.

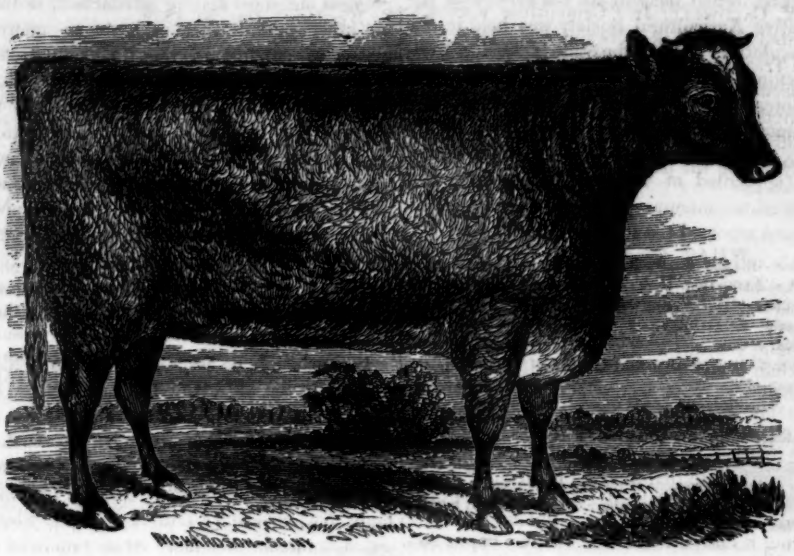
Half a century ago, the annual production of silver, so much as comes to the use of Atlantic nations, was estimated at $39,500,000; with no material deviation in the average in the meantime, the annual yield is now $44,000,000. Silver is flowing to the East with great rapidity. M. Chevalier, in his recent work, states the following facts: From the books of an English navigation company, it appears that in 1856 this company carried direct from England to Asia, $60,000,000, and in 1857, $84,000,000 in silver. In 1851, the quantity shipped through the same channel was only $8,500,000. There was sent to the East from the Mediterranean ports in 1856, $18,000,000. It goes eastward through many other channels, but the two items given above for 1857 amount to more than double the annual supply that comes to our part of the world. The Chinese and all the barbarous nations of Asia demand silver. In the British Empire of India, silver alone is the legal tender; and a new market is now opened for the same metal in Japan. How extensive a market this last will prove to be, cannot yet be known; but the Japanese will aid in draining silver from Europe, to the extent of whatever gold they now possess.—*American Merchant.*

GOOD ADVICE.

Let our young farmers throw their novels to the dogs, and fill their own heads with *facts.* Let them get up village lyceums, debating societies, agricultural meetings, anything adapted to the locality, and encourage the latent talent in the place, to show itself. There is no reason why a farmer should not be a well informed man, and be able to speak or write in such a manner as to demand attention. He has, or might have more leisure time than men in other professions, and instead of sitting down and complaining that the government is administered for the benefit of the idle at the expense of the worker, and that he does not get his share of the offices, let him *fit himself* for the performance of legislative duties. An intelligent farmer, who is able to draw his own conclusions, and form his own opinions, and give his reasons for them, in a clear, concise and logical manner, will have more influence in any legislature ever assembled in the state, than any lawyer. because it is generally believed to be the peculiar art of a lawyer, to "make the worse appear the better cause."—*N. H. Journal of Agriculture.*

A JUDICIOUS INVESTMENT.—A correspondent says: "I have recently bought a farm, and the very first dollar I have paid out on that account, is the one I now enclose for your *Monthly New England Farmer.*"

We predict that this man will not often be heard grumbling, and that he will make money by farming.



DURHAM HEIFER---JUBILEE OF ALBION.

Bred by R. A. Alexander, Woodford Co., Kentucky.....The property of Hon. John Wentworth, Illinois.

This breed of animals is so well understood by most persons who take an interest in cattle, that a lengthened description does not seem necessary at this time. We give the portrait of this heifer as a truthful illustration of one of the class, and to show how beautiful in form and expression, an animal may be made through the agencies of intelligence and care. The Durham cattle are docile, good feeders and milkers, lay on flesh rapidly, and those who breed them say they do this at a low comparative cost of feeding.

Mr. Wentworth, the owner of Jubilee, went from the State of New Hampshire many years ago a poor boy, and established himself as a printer and publisher, and growing up with the young city of Chicago, became rich, was sent to Congress, and has had many other trusts confided to him by the people. But he never forgot his early interest and love for agricultural products, and we found him several years since, during a brief call we made upon him, more ready to show us what he was doing and thinking about in agriculture, than to talk about political matters,—so that the call was an agreeable one. He devotes a considerable portion of his time and money to promote the interests of agriculture, and we cannot doubt, will find more gratification in such pursuits than in all the honors or emoluments of office.

CONDENSED CIDER.—The Messrs. Borden, of Winstead, Ct., who have been so successful in solidifying milk, have also accomplished the solidification of sweet cider. By the vacuum process, the cider, taken sweet from the press, is reduced five gallons to one, without boiling, and a beautiful jelly is the result; which will keep for any length of time without mould, souring, or fermentation of any kind. By the addition of water, it is immediately restored to its former condition, and becomes cider again. All that is lost by the process are the impurities that may exist in the primary apple juice, and the green, sickish taste. The restored cider is much like a drink of prepared tamarinds, but is more delicate and palatable. The condensed article is a beautiful wine colored jelly, and is excellent for the table, either with meats or as a dessert. When reduced and bottled with a proper delay, the article so "extended," will ferment and become superior sparkling champagne cider.—*Boston Traveller.*

THE HOMESTEAD.—This paper has been changed from the quarto to octavo form, and is much more convenient in its present shape. The January number is illustrated, and is printed on large and fair type. It has an able and earnest corps of Editors, gentlemen whose hearts as well as heads are enlisted in the calling which they have chosen. It has no crotchets, is modest but firm in its opinions, and is doing a noble work.

LEGISLATIVE AGRICULTURAL MEETING.

[REPORTED FOR THE NEW ENGLAND FARMER BY THOS. BRADLEY.]

The first formal meeting for the session of the Legislative Agricultural Society was held in the Representatives' Hall at the State House, on Monday evening. A large number were present, and much interest was manifested in the proceedings.

The meeting was called to order by Col. DAVID HEARD, of Wayland, at 7 o'clock, and the committee appointed at the informal meeting the week previous announced the following list of officers, and reported the annexed rules.

President—His Excellency, N. P. BANKS.

Vice Presidents—Hon. H. W. BISHOP, of Lenox; Hon. NATHANIEL EDDY, of Oxford, and Col. D. HEARD, of Wayland.

Secretaries—Mr. CHARLES L. FLINT, of Boston, and Mr. T. M. STOUGHTON, of Gill.

Executive Committee—Hon. SIMON BROWN, of Concord; Messrs. HIRAM NASH, of Williamsburg; J. S. ELDRIDGE, of Canton; GEO. HASKELL, of Ipswich, and LEWIS DEMOND, of Ware.

The following are the rules:

RULE I. — Speeches shall be limited to fifteen minutes each, unless by unanimous consent of the meeting, except in the case of the President of the evening, who shall occupy what time he may see fit.

RULE II. — The officers chosen shall hold their offices during the month of January, except the President, who shall be nominated each evening by the Executive Committee.

RULE III. — It shall be the duty of the Executive Committee to propose subjects, to nominate a President, and to invite speakers each evening.

The report was accepted.

On taking the chair, His Excellency addressed the meeting, alluding to the formation of the society, and the objects to be gained by such assemblages. He said there was no profession on which the interests of the Commonwealth are so dependent, none with which the prosperity of our people is so closely allied, as agriculture. The question which is presented for discussion is not only interesting to the tiller of the soil, but to all others —in a word it touches every interest in life; it is not only the interests of the farmer, but the merchant, scholar, mechanician and philosopher; the individual, the family, the State and the consolidation of States are all dependent on agriculture.

The question to be discussed this evening opens a wide field, but I am not so well able to speak on it as most of those present, and I shall not presume to occupy the time of the meeting by giving my crude views on the subject.

Speaking of the question, *"What will tend to make agriculture profitable and pleasant as a pursuit?"* the speaker asked, what is the general motive of men, and what controls them in business affairs? The profit of any pursuit may be found in the acquisition of wealth or in the advanced social position, and we are to determine what are covered by the words of the subject, "profit and pleasure."

The Governor spoke of mercantile life, and the risk engaging in it entailed, and said that when a man had tried everything else for a living and failed, he comes back to the earth, his highest, greatest and most lasting satisfaction, as there is no other pursuit that presents so many sure means of support as this. He admitted that mercantile life dazzled our country youth, as, if money was made in this, it was made more rapidly, but it should be the aim of the society to instil into the minds of young men and women the pleasures of an agricultural life, and by showing how it may be made profitable, create a pleasure in it. He spoke in warm terms of gratification of the objects of the society, and said that to show the strong claims of agriculture, the best means was by such meetings as these, repeated in various ways and places.

In conclusion, he assured the society of his deep interest in the objects of the meeting, and hoped that success would follow its deliberations.

Hon. H. W. BISHOP, of Lenox, next spoke. He said there was a great difficulty in bringing the agriculturists of the State together; they meet in clubs, &c., covering a limited area, and when they get such meetings as these we may all learn something valuable. The question for discussion was new to him, but he felt pleasure in contemplating it. The pleasures of agriculture none can detail, as they are so numerous, and the profits could not be enumerated in one evening. It had been well said that riches could not be acquired fast by agriculture, but what was of far more moment, they were sure. Judge Bishop then spoke of the reliance to be placed on the husbandman in case of invasion or intestine commotion, and said that not only by his money the State would be defended, but by his bone and sinew. The speaker said he had passed the sixth decade, and from his expence he would advise every man with a family not to leave agricultural pursuits in the hope of making a rapid fortune in commerce, lest he bring himself and family to penury.

Passing to the consideration of the profits of agriculture, he said that we must look to heaven for these, and not to Congress. Heaven sends the dews, clouds and seasons to grow and ripen the crops, but Congress cannot give the slightest assistance. We may be, and are encouraged, said he, by legislation, and more particularly by those modes recommended by the chairman, but no legislation affects the crops.

The speaker, alluding to the pleasures of agriculture, said there were no pleasures equal to those of the man who had his acres unincumbered, as he always would have his bread and meat, and these pleasures the agriculturist may arrogate to himself entirely. It has been said in days past, over and over again, that agriculture was not an honorable profession, and that it was a slow way

of making money, and the lawyer, doctor and clergyman were leaders in the professions by tacit acquiescence, but now mechanical and scientific improvements have lent their aid to the farmer to that extent that he is at the head of professional men. There is no occupation in life to which so much of science can be applied, and the speaker expressed his gratification in seeing that a bill had been introduced into the Legislature for a horticultural or agricultural garden in the vicinity of Boston. He concluded by speaking of vegetable physiology, and the attention given to the food of plants, asserting that the mechanical mixture of the soils is making a progress which will give to agriculture that social and political standing in the Commonwealth that science will always give.

Rev. Mr. SANGER expressed the pleasure it gave him in seeing the countenance given to the cause. The last speaker had spoken of science as requisite for the profit and pleasure of the agriculturist, but he thought knowledge should be diffused, and this he thought would be the true way of bringing pleasure. We must have knowledge of the soil, and the ingredients composing it, and then we want to know what vegetation requires in the soil. Mr. Sanger said that in the part of the country where he had lived, 20 or 30 years ago, 20 to 25 bushels of corn to the acre was considered rather above an average crop, while within the past 10 years premiums have been given for from 80 to 100 bushels to the acre on the same land. He spoke of the yield of wheat in the same section, and said that now it nearly doubled the produce per acre of the land in Ohio, and this was, in a large number of cases, the result of an acquaintance with the soil.

The speaker urged on farmers the encouragement of a love of the beautiful as producing a contented mind, and recommended the planting of trees and flowers around their dwellings, thus connecting beauty with the necessaries of life.

Hon. JOSIAH QUINCY, Jr., being called on, said he thought the great question in relation to agriculture was, "Will it pay?" and he thought the purpose should be to show that it will. He spoke of farming in England and France, and said that in these countries men invested very large amounts of capital in cultivating small farms, thus making it a very profitable investment, and getting the most from the land, while here our farmers are too desirous of extending their labors over too much territory, and not half cultivating any of it. He said that there was nothing that paid better than money judiciously expended on the soil, and in proof of this he spoke of pet pieces of ground that yielded at the rate of $50 to the acre, and he asked why this might not be extended to 100 acres? He had 10 acres of ground on which the hay was not worth cutting; finding this, he broke it up, fertilized it, harrowed and seeded it, at an expense of $50 per acre, and the first year he got 2½ tons of hay from it, which he could sell at the barn for $20 per ton, thus paying in one year for the entire expense. He had last year raised 300 tons of hay, which cost him $700, which he harvested for $2 50 per acre, while his neighbor could not do it for $5; but the speaker said he had the advantage of the best machines, mowing, raking, &c., and it is in not having these that farmers lose money. He thought farmers were the most extravagant men in the world, and he showed this by their neglect in saving manure. Mr. Quincy then showed that a cow kept up during the year will produce more value in manure than the value of her milk, relying on the estimate of Dr. Samuel L. Dana, that she produces 21 cords. He alluded to the care which is taken in Europe in this matter, and spoke of the result in bountiful harvests.

The great element of farming, said he, is saving, with a liberal and judicious expenditure, and we must either invest more capital, or reduce the area of our farms to make the land yield what it will do, and he considered that it would be far better if farmers invested their profit in their land than in bank or railroad stocks.

Mr. BUCKMINSTER spoke of the mental and bodily health a farmer enjoys, and urged on the meeting the importance of instilling the pleasures and profits of agriculture as well as the importance of health, on the minds of the rising generation. He also advocated the importance of farmers who know how to make farming profitable, assigning to their children a small piece of ground, and teaching them how to cultivate it, so as to incite a desire to acquire more, and this he contended would be the best course by which to forward the cause of agriculture.

Mr. HOWARD, editor of the *Cultivator*, related an incident which came to his knowledge last year, of a Dutch farmer, in New York State, who, from a squatter on seven acres of land, and one cow, had become the owner of a farm of 50 acres, with 15 cows, and a good house and farm buildings, and all acquired from the careful saving of manure. He attributed the dissatisfaction of farmers to the waste of this valuable assistant, and contended that, until more care was bestowed on this, farmers could not expect to realize large returns. He also spoke of English farmers, and urged on the farmers here the necessity of keeping book accounts of the cost of all produce.

Mr. GARDNER, of Swansey, thought a man should have an aptness for his calling, and this more particularly applied in the case of the farmers, as if a man liked his business he would be industrious in proportion. He thought the argument that a man must have a capital to commence

farming was not entirely correct, as he had knowledge of quite a number of men who had acquired good farms from being thrifty day laborers. He alluded to the knowledge of science by farmers, and said he thought that in the majority of cases a farmer learned more from actual experiment than from the study of books.

On motion of Col. Heard, the same subject was assigned for consideration at the next meeting, when the Society adjourned to Monday evening next, at 7 o'clock.

EXTRACTS AND REPLIES.

MAKING BUTTER IN WINTER.

I have found no difficulty in making butter in winter; my process is simply this: keep the milk in a cool place; if it freezes it will not injure it; collect the cream about ten days, then place the pot of cream near a fire, stirring it occasionally, till it becomes nearly milk-warm. Then scald the churn, and the butter will come in about half an hour, of a good quality, fit for any man's table. The great difficulty is in not having the cream of a right temperature before churning. If Mr. Leonard will try this method, I think he will have no difficulty in future.

Please inform me what kind of churn is best.

Derry, N. H., 1860. Dairywoman.

Remarks.—We cannot tell which of all churns is the best. Out of some five or six kinds which we have tried, we prefer and use the Fyler churn.

A correspondent in Auburn, N. H., states that by setting the milk on the stove as soon as it is strained, and bringing it to scalding heat, and by keeping the cream in the warm kitchen, the butter will come in from twenty-five to thirty minutes.

M. P. Knowles, of Rangely, Me., scalds the milk as above, and *warms* but does not *heat* the cream. To give the butter a good color, he says, I scrape a carrot and warm it in about three pints of cream, and strain it into the churn.

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ABOUT GRAPES.

I have transplanted several kinds of wild grapes into my garden for trial, but the quality is not improved, as they only ripen sooner in a more favorable location; I shall not longer give them room, since I have got the Diana, Concord, Isabella, Sage, Globe Seedling, Warren Seedling, the Cherry grape, and others. I have the early Muscadine, which ripens two weeks earlier than the Diana or Concord, and is the best early sweet grape I have. The Sage and Globe Seedling and Warren Seedling, are early and quite good grapes, the Sage, I think best; the Catawba does not ripen with me. I have eaten them ripe, raised by Charles H. Holt, of South Lyndeborough, N. H. We want the best grape that is productive, and will ripen in the location where we cultivate.

Oliver Butterfield.

Francestown, N. H. Jan., 1860.

GEESE AND GOSLINGS.

Will some of your many correspondents give me a few directions in regard to the raising and management of geese? For the novelty of the thing, I purchased last spring three geese and a gander, of the common kind. In due time, one of them brought forward six goslings. Failing in our efforts to make them eat, we drove them into the river near by, leaving them to manage to suit themselves. The other two geese were sitting on the opposite bank of the river, where the gander, also, had posted himself as guard. The moment the goose and her progeny were discovered, his gandership flew across and escorted them to the other side with noisy rejoicings that made the welkin ring. Jealous of the attentions bestowed upon their quondam companion, the others quit their nests and insisted upon sharing her maternal cares. However, we forced one to return to her setting till she produced four goslings, when she adjourned, *sine die*. These weaklings, meeting with general ill treatment, soon turned their last summerset, and the geese uniting in care of the older ones, brought them all up finely, without other interference.

How often should geese be plucked during the warm season?

Where can the "Leghorn fowls," mentioned in your last week's paper, be obtained, and at what price?

Nashua, N. H., 1860.

Remarks.—We have never raised geese, and know little about them. Will some one reply to our fair correspondent—for it is a lady who writes—and inform her, also, where the Leghorn fowls can be obtained?

—

LICE ON COLTS.

I wish to inquire through the columns of the *Farmer* what will rid my colt of lice? By giving such information you will oblige

Samuel Chase Nay.

Raymond, N. H., 1860.

Remarks.—Take a soft brush and a little pure lard, and rub the colt all over with it; a table spoonful of lard will be nearly sufficient. Repeat this every third day, keeping the colt dry and warm, and feeding him liberally through the winter. If this does not succeed, we will suggest another remedy.

—

MANURE FROM TANNERIES.

I wish to inquire whether manure from a tannery is good for agricultural purposes?

Pawtucket, 1859. A. B. Franklin.

Remarks.—If the scrapings of hides and the hair are mixed with other rubbish about the tannery, they form an active and valuable manure.

—

A CURE FOR CHILBLAINS.

Put a large spoonful of fine salt on the place affected, in the morning, and put the sock on carefully so as not to disturb the salt; then wet the outside of the sock with vinegar. By doing this a few times a cure is certain. Sound Feet.

Auburn, N. H.

WART ON A COLT.

Please tell what will take a wart from a colt, and oblige C. W. FAY.

East Hubbardston, Vt.

REMARKS.—Mr. A. Briggs, of Deerfield, Mass., says that potash dissolved to a paste laid upon the wart for half an hour, and then taken off and the part washed in vinegar, will cure a wart on man or beast. We do not know personally.

UNITED STATES AGRICULTURAL SOCIETY.—At the recent meeting of this Society, the following officers were chosen:—Henry Wagner, Western New York, President; B. B. French, Treasurer, and Ben: Perley Poore, Secretary. On Thursday morning, 12th, the President attended the United States Agricultural Society to receive his diploma as an honorary member. The President of the Society, in delivering it, said that it was a strange coincidence that every President of the United States had either been called from the plow, like Cincinnatus, or else retired to it at the expiration of their terms of office. Mr. Buchanan, in reply, spoke of his taste for agricultural pursuits, though he had but little opportunity to indulge in them. He paid a high tribute to the tillers of the soil, and anticipated his return to Wheatland in less than eighteen months, to enjoy the independence and quiet of rural life. His speech was frequently interrupted by applause.

Hon. Marshall P. Wilder, of Massachusetts was voted the "grand gold medal of honor," as the founder and constant patron of the society. This is the largest and most valuable medal struck in America.

SPONTANEOUS COMBUSTION OF HAY.—"Omega," of Roxbury, in a communication on "spontaneous combustion in hay," in the *Farmer* of November last, asks for more light on the subject, although he seems convinced that spontaneous combustion in salt hay was the cause of setting his barn on fire. Mr. Geo. Whitney, of Essex, Vt., says in a note to us,—

"We get in our hay very green up here, and if there is any danger of spontaneous combustion in so doing, we should like to know it. Will you, or some of your readers, tell us?

We have no knowledge on the subject; those who have will please to communicate it.

FATAL DISEASE AMONG CATTLE.—Our agricultural readers will regret to learn, says the *Transcript*, that Winthrop W. Chenery, Esq., of Belmont, has lost twenty-seven head of valuable cows and oxen within the past six months, by pneumonia, or inflammation of the lungs, (an infectious disease, similar to the "murrain," now prevailing in the north of Europe.) Mr. Chenery has imported the best Dutch cows that ever came to this country, and it is a public loss that such stock should meet such a fate. The last cow that died this week was the largest animal in the United States, and weighed 3260 pounds! The skeleton has been presented to Professor Agassiz for his new Museum. Mr. Chenery's farm was formerly owned by the late James Brown, Esq., is on the summit of Wellington Hill, and is considered one of the healthiest spots in the neighborhood of Boston.

PRUNING APPLE TREES.

In another column we give an article upon the subject of pruning and transplanting apple trees, and are happy to present it at this early day, in the hope that it may prevent some persons from spoiling their trees *by pruning them when the sap is freely flowing.* We have often called attention to this subject, and in one or two instances have endeavored to show the reasons why spring pruning is injurious. It is much more to convince the unbelievers in the orchard, than it is on paper.

The candid attention of the reader is asked to Mr. GOLDSBURY'S article, and also to what has heretofore been said in the *Farmer* on the subject.

IMMENSE FORESTS.—Spars are sent from Puget Sound to Asia, the Sandwich Islands, Australia, and to the navies of England and France. The Hon. Isaac I. Stevens, Congressional Delegate from Washington Territory, has stated that "within one mile of the shores of the Sound, there is more timber than can be found on all the tributaries of all the waters of Maine."

KEEPING MILK SWEET.—A correspondent of the *Homestead* found that, in sending milk to market, though it left the dairy perfectly sweet, it was often curdled on delivery to customers. To remedy this, the cans were covered with cotton cloth soaked in salt water. By this method the curdling of the milk was entirely prevented.

YOUTH'S DEPARTMENT.

"THE GRIT BARE-LEGGED LADDIE."

Sixty years ago, a stout youth of eighteen years old, who had been known among his neighborhood as "grit bare-legged laddie," called on a poor village schoolmaster, and said—

"I would like to attend your evening school, sir."

"What do you wish to study?" asked the teacher.

"I want to learn to read and write," replied the lad.

The teacher looked into the lad's face with a somewhat scornful glance, shrugged his shoulders, and said:

"Very well, you can attend."

Now, if that bony lad had said to the teacher, "I mean to become a great inventor, to be the companion of rich and noble men, to hold conversation with kings, and to write my name among the great men of the world," I dare say the teacher would have called the boy a fool for cherishing such wild dreams. Yet that poor bony lad, who at eighteen did not know the alphabet, did all those things before he died.

Who was he? His name was George Stephenson, the great railway pioneer!

It was not the fault of young George that he

was ignorant, it was only his misfortune. His parents were too poor to send him to school. He was the son of the fireman of a pumping engine in a colliery. His birthplace was a cottage with a clay floor, mud wall and bare rafters. He had to help earn his living from his earliest years, first by herding cows and barring up the gates of the mine at night. Next he was put to picking stones from the coal, and after that to driving a horse, which hauled coal from the pit. By-and-bye he was made assistant fireman to his father. When he was seventeen he was made plugman of a pumping engine—a higher post than his father's, and had climbed, as it seemed, to the top of his ladder. What hope was there for a youth who could not read at seventeen?

But George had hope in his breast. His engine was a lesson-book to him. He took it apart and put it together again, studied it, loved it, and when he was told that there were books which told about engines, he made up his mind to go to school.

To school he went, and soon learned all that the village masters could teach. When twenty years old he was made brakesman, and began to think about inventing better engines than he saw about him.

His next work was a railway eight miles in length, and from this point he went on until he was known as the great railway pioneer of the world.

George was often laughed at by men who thought themselves much wiser than he. One day he was proposing to build an engine to run twelve miles an hour. A grave-looking gentleman thinking to put him down, said:

"Suppose one of these engines to be going along a railroad at the rate of nine or ten miles an hour, and that a cow were to stray upon the line, would not that be a very awkward circumstance?"

"Yes," replied Mr. Stephenson, "very awkward indeed—for the cow!"

Thus, by his own industry, did the "grit bare-legged laddie" climb to a very high place among men. Great men, and even kings, sought his advice, wealth flowed into his purse; his name was honored, his character respected. At a ripe age he died and went to his eternal reward.

Let this sketch cheer on the boys and girls to patient effort in the path of duty. Learn something every day. Press forward! Be good, and you will prosper.

GREAT MEN WHO ROSE FROM THE RANKS.

From the barber's shop rose Sir Richard Arkwright, the inventor of the spinning jenny, and the founder of the cotton manufacture of Great Britain; Lord Tenterden, one of the most distinguished of English Lord Chief Justices; and Turner, the very greatest among landscape painters. No one knows to a certainty what Shakspeare was; but it is unquestionable that he sprang from a very humble trade. The common class of day-laborers has given us Brindley, the engineer; Cook, the navigator; and Burns, the poet. Masons and bricklayers can boast of Ben Johnson, who worked at the building of Lincoln's Inn, with a trowel in his hand, and a book in his pocket; Edwards and Telford, the engineers; Hugh Miller, the geologist; and Allan Cunningham, the writer and sculptor; whilst amongst distinguished carpenters we find the name of Inigo Jones, the architect; Harrison, the chronometer maker; John Hunter, the physiologist; Romney and Opie, the painters; Professor Lee, the Orientalist; and John Gibson, the sculptor. From the weaver class have sprung Simpson, the mathematician; Bacon, the sculptor; the two Milners, Adam Walker, John Foster, Wilson, the ornithologist; Dr. Livingstone, the missionary traveller; and Tannahill, the poet. Shoemakers have given us Sturgeon, the electrician; Samuel Drew, the essayist; Gifford, the editor of the *Quarterly Review*; Bloomfield, the poet, and William Carey, the missionary; whilst Morrison, another laborious missionary, was a maker of shoe lasts. Within the last year, a profound naturalist has been discovered in the person of a shoemaker at Banff, who, while maintaining himself by his trade, has devoted his leisure to the study of natural science in all its branches, his researches in connection with the smaller crustaceæ having been rewarded by the discovery of a new species, to which the name of *Praniza Edwardsii* has been given by naturalists.

Nor have tailors been altogether undistinguished, Jackson, the painter, having worked at that trade, until he reached manhood. But what is, perhaps, more remarkable, one of the gallantest of British seamen, Admiral Hobson, who broke the boom at Vigo in 1702, originally belonged to this calling. He was working as a tailor's apprentice near Bonchurch, in the Isle of Wight, when the news flew through the village that a squadron of men-of-war were sailing off the island. He sprang from the shop-board, and ran down with his comrades to the beach to gaze upon the glorious sight. The tailor boy was suddenly inflamed with the ambition to be a sailor, and, springing into a boat, he rowed off to the squadron, gained the admiral's ship, and was accepted as a volunteer. Years after he returned to his native village, full of honors, and dined of bacon and eggs in the cottage where he had worked as a tailor's apprentice. Cardinal Wolsey, De Foe, Akenside, and Kirke White, were the sons of butchers; Bunyan was a tinker, and Joseph Lancaster, a basket-maker. Among the great names identified with the invention of the steam-engine are those of Newcomen, Watt, and Stephenson; the first a blacksmith, the second a maker of mathematical instruments, and the third an engine fireman. Dr. Hutton, the geologist, and Bewick, the father of wood-engraving, were coal-miners. Dodsley was a footman, and Holcroft a groom. Buffin, the navigator, was a common seaman, and Sir Cloudesley Shovel, a cabin-boy. Herschel played the oboe in a military band. Chantrey was a journeyman carver, Etty a journeyman printer; and Sir Thomas Lawrence the son of a tavern-keeper.

Michael Faraday, the son of a poor blacksmith, was in early life apprenticed to a book-binder, and worked at that trade until he reached his twenty-second year; he now occupies the very first rank as a philosopher, excelling even his master, Sir Humphrey Davy, in the art of lucidly expounding the most difficult and abstruse points in natural science. Not long ago, Sir Roderick Murchison discovered, at Thurso, in the far north of Scotland, a profound geologist, in the person of a baker named Robert Dick. When Sir Roderick called

upon him at the bake-house, in which he baked and earned his bread, Dick delineated to him, by means of flour upon a board, the geographical features and geological phenomena of his native county, pointing out the imperfections in the existing maps, which he had ascertained by travelling over the county in his leisure hours. On further inquiry, Sir Roderick ascertained that the humble individual before him was not only a capital baker and geologist, but a first rate botanist. "I found," said the Director General of the Geographical Society, "to my great humiliation, that this baker knew infinitely more of botanical science, ay, ten times more, than I did; and that there were only some twenty or thirty specimens of flowers which he had not collected. Some he had obtained as presents, some he had purchased; but the greater portion had been accumulated by his industry, in his native county of Caithness, and the specimens were all arranged in the most beautiful order, with their scientific names affixed."—*Self-Help, by Samuel Smiles.*

LITTLE WILLIE AND THE APPLE.

Little Willie stood under an apple tree old,
The fruit was all shining with crimson and gold,
Hanging temptingly low;—how he longed for a bite,
Though he knew if he took one it wouldn't be right.

Said he: "I don't see why my father should say
'Don't touch the old apple tree, Willie, to-day;'
I shouldn't have thought—now they're hanging so low—
When I asked for just one, he should answer me 'No.'

"He would never find out if I took but just one,
And they do look so good, shining out in the sun,
There are hundreds and hundreds, and he wouldn't miss
So paltry a little red apple as this."

He stretched forth his hand, but a low, mournful strain
Came wandering dreamily over his brain;
In his bosom a beautiful harp had long laid,
That the angel of conscience quite frequently played.

And he sung: "Little Willie, beware, O, beware,
Your father has gone, but your Maker is there;
How sad you would feel if you heard the Lord say,
'This dear little boy stole an apple to-day.'"

Then Willie turned round, and as still as a mouse,
Crept slowly and carefully into the house;
In his own little chamber he knelt down to pray
That the Lord would forgive him and please not to say,
"Little Willie *almost* stole an apple to-day."

LADIES' DEPARTMENT.

SWIMMING FOR WOMEN.

THE SWIMMING SCHOOL AT PARIS.

As many parents are wishing to know how girls can be taught to use their limbs in the water, it may be interesting to them to hear how the art is taught at Paris. The water is that of the Seine. This is the least agreeable circumstance in the case, as the water of the Seine is quite as unfragrant in the summer months as that of the Thames. Whether it is purified on entering the baths, I do not know. Let us hope that it is. The bath is moored in the river, and the space occupied by water is 120 feet in length; a course long enough to afford room for all the exercises connected with swimming. A wooden platform, three or four feet under water, reaches to about the middle of the width of the bath; and this is for the use of children, and mere bathers who do not swim. The other half is of a considerable depth in the middle, admitting of practice in genuine diving. The dress is excellent for the purpose. It is made of a light woollen fabric, which does not absorb much water. The trowsers are loose, and fastened at the ankles. The upper dress, also loose, extends to the knee, and is belted round the waist, and closed at the neck.

It is just as decent a dress as English ladies used to wear when Bath was called "The Bath," and when wigged gentlemen and powdered ladies used to wade about in full trim, and chat in the water. The first step in the process of teaching is to make the pupils understand how to keep on the surface, and know how to sink to the bottom. Most people know that to spread out the limbs is to float, and to double one's self up is to sink; but it is not everybody who knows that the quickest way of going to the bottom is to raise the arms above the head. This is precisely what women do when they fall out of a boat, or find themselves overboard in a shipwreck. Up go their arms in their terror; and down they go to the bottom like a shot. This is the action used by divers, who want to reach that point by the shortest way. From the ceiling of the Paris bath hangs a rope, which travels along on a sort of crane. Where this rope touches the water a broad belt is attached to it. The belt is fastened easily about the pupil's waist, supporting her in the water, and leaving her at liberty to learn the action of the limbs in swimming. She is made perfect in these, and must then try her powers without support. To render her safe and preclude fear, the instructor, (who is a master and not a mistress,) walks along the edge, just before her, holding a pole within her reach, which she can grasp in an instant, if fatigued or alarmed. It does not follow that we must have swimming-masters in England.

The art is taught all along the rivers of Germany, and invariably by women in the women's baths. In that case the dress is less elaborate and there is more freedom and simplicity in the practice. It is a remarkable sight when the master is followed by ten or twelve pupils, his pole reminding one of the magnet which brings swans or fishes to the bread in a basin of water, in the old-fashioned toy which astonishes children. The second pupil has a hand on the shoulder of the first, and swims with the other three limbs; the third on the shoulder of the second; and so on, looking like a shoal of mermaids. When so thoroughly at ease as to amuse themselves for a long time in the water, the ladies sometimes get hungry; and then is seen another remarkable sight, not quite so pretty. They rush from the bath to a confectioner's shop, which opens upon it, and may be presently seen swimming with one hand, and with the other eating their lunch, completely at ease. After learning the art in fresh water, it is mighty easy to swim in the sea, from the density of the water, and scarcely possible to sink. A woman who knows how to float is safe for many hours in the sea, as far as keeping on the surface is concerned. Among breakers or sharks, or in extreme cold, the peril is not of drowning simply. The simple peril of drowning might be reduced to something very small, if everybody could swim.—*Once a Week.*

DOMESTIC RECEIPTS.

HINTS TO HOUSEWIVES.—Vessels intended to contain liquid of a higher temperature than the surrounding medium, and to keep that liquid as long as possible at the highest temperature, should be constructed of materials which are the worst radiators of heat. Thus, tea-urns and tea-pots are best adapted for their purpose when constructed of polished metal, and worst when constructed of black porcelain. A black porcelain tea-pot is the worst conceivable material for that vessel, for both its materials and color are good radiators of heat, and the liquid contained in it cools with the greatest possible rapidity. On the other hand, a bright metal tea-pot is best adapted for the purpose, because it is the worst radiator of heat, and therefore cools as slowly as possible. A polished silver or brass tea-urn is better adapted to retain the heat of the water, than one of a dull brown color, such as is most commonly used. A tin kettle retains the heat of water boiled in it more effectually if it be kept clean and polished, than if it be allowed to collect the smoke and soot to which it is exposed from the action of the fire. When coated with this, its surface becomes rough and black, and is a powerful radiator of heat. A set of polished fire-irons may remain for a long time in front of a hot fire, without receiving from it any increase of temperature beyond that of the chamber, because the heat radiated by the fire, is all reflected by the polished surface of the irons, and none of it is absorbed; but if a set of rough, unpolished irons were similarly placed, they would become speedily so hot, that they could not be used without inconvenience. The polish of the fire-irons is, therefore, not merely a matter of ornament, but of use and convenience. The rough, unpolished poker, sometimes used in a kitchen, becomes speedily so hot that it cannot be held without pain. A close stove, intended to warm apartments, should not have a polished surface, for in that case it is one of the worst radiators of heat, and nothing could be contrived less fit for the purpose to which it is applied. On the other hand, a rough, unpolished surface of cast iron, is favorable to radiation, and a fire in such a stove will always produce a most powerful effect.—*Dr. Lardner.*

A BOILED DISH.—Almost every family has a dinner, as often as once a week, of what is popularly called a "boiled dish," and which, properly cooked, is one of the best dishes in the world; but all cooks do not know the best way to boil corned beef. The common method, in order to make it tender, being to put it in cold water, and let beef and water come gradually to a boil. This certainly makes beef tender, but it also extracts all the strength and juices. A better way is to wait till the water boils before putting in the beef; it will then be equally tender, and will retain all its strengthening and juicy properties. Many housekeepers suppose that putting meat in hot water inevitably renders it hard and tough; and so it will, if the water is only hot; but if it boils, the effect will be the reverse. Just as putting a discolored table-cloth in hot water will set the stains; but put it in boiling water, and it takes them clean out. The same rule applies to all boiled meats. Hams, after boiling four or five hours, should be taken out, the skins taken off, and cracker or bread crumbs grated over them, and then baked in a brisk oven for one hour. A leg of mutton can be treated successfully in the same way, only it does not require to be boiled so long. Of course, the boiling process should be gentle.—*Mrs. Croley.*

RECIPE FOR CURING SWEET HAMS.—The following recipe for curing hams, was furnished us by Mrs. James Darke, of Berkley, who received it from England.

For four hams, take two ounces of saltpetre, two quarts of molasses, one-quarter of a pound of pepper, half an ounce of cochineal, about three pints of fine salt. If the hams have been in salt pickle, the salt will not be needed; pound the saltpetre and cochineal, then put all these ingredients together; and rub the hams thoroughly with the pickle; turning them every day. Let them remain in the sweet pickle two weeks, then take them out, smoke them a week or more, to suit the fancy.—*Taunton American.*

A WORD ABOUT SKATING.

The season is here, during which nature gives to all men, women and children, and especially to those who are of slender constitution, and whose pursuits are sedentary, one of the best fountains of health that the world contains. She will clothe every stream and lake with a polished enamel, inviting all human beings to go out into the open air, and to seek amusement, and health of larger quantity and better quality than they can obtain in any other way. Skating combines more that is desirable than any other form of exercise, and it is especially valuable to women. Not only is it graceful and exhilarating, but it is a wonderful tonic, and will do much, if it can be generally followed by females, toward elevating the physical character of our race. Every girl should learn to strap on a pair of skates as soon as she is old enough to run out doors, and every woman whose duties are in doors, should daily, if possible—at any rate, frequently—buckle on the irons, and glide over the glittering ice. The pleasure, the health thus attainable are beyond telling. Parents, get skates for your girls especially, (the boys will get them for themselves,) and drive them out daily to play on the ice. The glowing cheek, the expanding form, the robust health that follows, will be a rich reward.—*Gospel Banner.*

OBEDIENCE TO THE MOTHER.

"Come away; come instantly, or I will call your father," I heard a mother say to her child, who was playing in the street before her window. I did not stop to learn the result, but I pitied the poor mother who had not power within herself to control her child, and who so unhesitatingly declared her inefficiency.

A mother should never thus appeal to the father's authority to strengthen her own, nor should she admit, by thought, word, or deed, that her power is inferior to his. God never made it inferior, and he requires as prompt obedience to the one as to the other. The mother who allows herself thus to appeal to another is continually weakening the authority she should exercise over the children. She is herself teaching them to disobey the commandment which inculcates obedience to parents, for what child can honor a mother too weak to govern him?